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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

RECURRENT IRITIS, AND ITS RELATIONS TO CHOROIDAL DISEASE.*

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The general features of iritis are so well understood that I shall not delay you in order to portray its usual manifestations; but enter at once upon the study of a small group of cases which shall serve me to illustrate the subsequent history of many eyes, once the subject of acute iritis.

The cases are selected, not because they present unusual symptoms or a novel history, but rather because they furnish clear-cut examples of a frequently-occurring form of disease; and I believe throw some light on the pathogeny of chronic iritis. They furthermore illustrate the serious importance of the disease, and the value of certain methods of treatment.

No form of eye disease numbers a larger percentage of blind people among its victims than those insidious, but none the less destructive processes which follow in the train of the acute plastic inflammations of the iris. It has long been observed that eyes, once the subject of this disease, are liable to progressive deterioration of vision, and often suffer acute relapses of the iritic inflammation. This liability to recurrence seemed to depend upon the presence of attachments between the pupillary margin of the iris and the anterior capsule of the lens, since it was observed that cases which recovered, having escaped the formation of posterior synechia, but rarely showed such tendency.

Von Graefe, in 1856 (*Archiv. f. Ophth.*, Bd. ii., Abt. 2, S. 202), published his important communication on iridectomy as a means of treating chronic iritis and irido-choroiditis, in which he asserts "*that the principal cause of recurrence of iritis is the existence of synechia, especially when broad and inextensible.*" Again: "*that the exclusion of the pupil is the point from which the further complications proceed, especially chronic choroiditis.*"

The method of treating acute iritis by mydriatics, at that time insisted upon by him, had for its principal motive the prevention of adhesions of the iris to the lens capsule, and up to the present time is the universally accepted treatment—the baneful influence, which he ascribed to the existence of synechia, seemed so thoroughly in harmony with the clinical features of chronic iritis, that for many years its entire correctness was accepted without a question.

Schweigger, however (Handbook of Ophthalmology, American Edition, pp. 335, Philadelphia, 1878), in commenting on relapsing iritis, employed the following language: "Such patients are for an indeterminate length of time, at intervals of a month or longer, attacked more or less severely with iritis. It is not strange that such persons generally have a number of iritic adhesions; and still this fact is the only ground upon which is based the generally-accepted assertion that these adhesions are the cause of the relapses." In substantiation of this statement he cites a fact within the range of experience, of all

*Read before the Philadelphia County Medical Society.

ophthalmologists certainly, that many persons, notwithstanding the presence of numerous synechiæ, do not suffer from relapsing iritis, and that, on the other hand, other cases do thus suffer, who have been properly treated from the beginning with atropine, in which no synechia remains.

F. Schnabel (Knapp's Archiv., Oph. and Otol., vol. v.,) has also called in question the truth of Graefe's first proposition, in an elaborate paper on the "Accompanying and Consecutive Diseases of Iritis."

Experience, however, has established upon so firm a foundation the value of the early employment of mydriatics, that we should accept only after the closest scrutiny, any report which would change our notions regarding the hurtfulness of iritic adhesions. It is, nevertheless, important that our eyes should not be closed to other conditions which may stand in a causative relation to recurrent iritis. Any doctrine accepted without question antagonizes further progress.

One object in presenting this paper is to set forth the probability *that too much importance has in some cases at least been given to the existing posterior synechia; since the plastic iritis resulting in their formation is itself often consecutive, and the subsequent eye history was probably but a continuance of the primary disease, the recurring attacks of acute iritic inflammation being only the extension forward of acute exacerbations primarily affecting the structures posterior to the iris, most probably the ciliary body and choroid.*

The following case will illustrate the truth of this proposition:

Case 1. Mrs. H., æt. 63, in good health, although from gouty ancestry, consulted me in April, 1879, for failing sight and inability to use her eyes for near work without pain: $V=\frac{20}{XL}$ in each eye. A weak concave cylinder was very positively selected with its axis at 180°, but no smaller letters could be seen. She complained of a fine web or veil before her eyes, dotted with numerous fine dark points; externally the eyes appeared normal except some enlargement of the anterior perforating vessel; the field was perfect and no increase of tension. The ophthalmoscope revealed only a hazy view of the eye-ground. The nerve was normal in color, and there was no derangement of the central retinal circulation; the visible choroid showed no change. The cornea and lens were transparent, but the anterior part of the vitreous body was hazy, and a magnifying-glass showed innumerable fine dark points as viewed by transmitted light. No web could be made out, and the dust-like particles were almost fixed. The condition of both eyes was similar.

There was no marked change after four months, during which time she had been quite unable to use her eyes. The following August, after a drive in the park, facing the western sun on a hot afternoon, she returned home with much discomfort in O. D., which during the night ripened into severe pain, which prevented sleep. The following morning, September 1, the eye was red, painful, and extremely sensitive to light. September 2, the eye was some better, and she ventured out-of-doors, the day being cloudy, and came to the office. There was still marked ciliary injection, ball tender to the touch in the ciliary region—T *n*—V diminished, and mydriasis revealed a broad synechia, attaching the lower pupillary margin to the capsule. She proved remarkably susceptible to all the mydriatics, so that I was compelled to use them with great caution to prevent serious constitutional poisoning. The eye rapidly regained its former condition, but the adhesion remained throughout the subsequent history of the case. Through the following autumn and winter Mrs. H. had repeated attacks of inflammation resulting in the formation of delicate synechia, but profiting by her first experience, the mydriatic was applied at the very outset, so that they were usually torn asunder, leaving a minute pigment-spot on the anterior capsule at the site of attachment. It is worthy of remark that however early in the attack the mydriatic was used, this attachment was, with a few exceptions, found present. The attacks occurred quite indifferently in either eye, often in both simultaneously, rarely more than ten or fifteen days elapsing without an out-and-out attack of inflammation, or a flushing of the ciliary region. These exacerbations were determined by various causes; *e. g.*, fatigue, a shopping expedition, any effort at near work, or a visit to the laundry or kitchen, immediately brought on pain and ciliary injection, resulting in an iritic attack if persisted in.

Under the internal administration of guaiacum and iodide of potassium, and the free use of the Bedford water, the attacks gradually grew less frequent and severe. 1880 was passed with only a few exacerbations, but she purchased the immunity from attack by the most assiduous care, n the avoidance of those influences which experience had taught her to dread. The balls, however, remained tender, and her vision fluctuated about $\frac{20}{XL}$, sometimes much less than this, at other

times somewhat better: on one occasion with correcting glass it was noted at $V=\frac{20}{XXV}$ in each.

In October, 1881, while sitting in church, she had marked photopsies, which were followed in a few hours by an usually severe onset of binocular iritis, which resulted in firm bands of adhesion in both eyes, notwithstanding the employment of local depletion and of atropia as vigorously as she could bear it. The eye once more lapsed into its former condition, with an additional adhesion in O. D., and a firm band in O. S. There was after this attack a marked increase in the haziness of the vitreous humor. Her former experience was now repeated. There were frequent recurrences of the iritic trouble, so that she lived in constant dread, and was greatly discouraged. Various therapeutic measures were adopted, only to be relinquished as of no avail. Iridectomy was now suggested as a probable means of permanently removing the tendency to recurrence. Sulphate of eserine had been used at different times, but only with the result of adding acute periorbital neuralgia to her present distress.

At the time I chanced to be interested in a series of clinical observations at University Hospital, on the effect of this drug over the nutrition of eyes lost by past injury or former inflammation, but now subject to subacute exacerbations and setting up sympathetic irritability of the fellow-eye. I had noticed that while solutions not stronger than 1 gr. or 2 gr. to the f. ℥i., would cause great pain and thus prevent its use, weaker solutions could be used without difficulty, and with the effect of rapidly relieving the redness of the chronically inflamed eye, and with it the irritability of its fellow.

A very striking result had been gained in a case then and still under observation. A young woman, at work in a carpet mill, came to the clinic, having been advised to have her left eye removed, to which she strenuously objected. There was well-marked sympathetic irritation, depending upon the irritable and blind left eye. The cornea of O. S. was opaque, still vascular and becoming staphylomatous at the centre, where was an adherent circatrix at the site of a perforating ulcer occurring in childhood. The eye was painful T +, and the sunlight was very painful to the right eye. She could not come into the hospital for immediate enucleation, and was very loth to submit to the operation at all; so she received a solution of sulphate of eserine, gr. $\frac{1}{8}$ to f. ℥j., to be used in the blind eye three times in the twenty-four hours, and instructions to report daily. All the symptoms rapidly subsided. The drops were used for many weeks, and although nearly two years have elapsed, she has had no serious return of the symptoms, notwithstanding the presence, on one occasion, of a small foreign body in the centre of the former corneal staphyloma, which had been allowed to remain many days.

Without room for question, the nutrition of this eye had been greatly improved under the use of the eserine. With this and other examples in mind, Mrs. H. was directed an eserine solution, .002 gm., 10 cc. to be used twice daily. In a short time after each instillation, she had a throbbing in her eyeballs and a sensation which she described as a starting forward of the eyeball, which then appeared to recede to their proper bed. There was also a slight twitching of the lips but no pain. A month later $V=\frac{20}{XX}$ with her correcting glasses in each eye. She had not been even threatened by her old enemy, and was already gaining confidence in the use of her eyes at near work. Four months later, after a long and fatiguing railroad journey, she had a mild attack in Cincinnati, but she had not neglected her homatropin solution, which, through her long trial, she had used with the earliest symptoms of an attack. This was freely instilled, and in twenty-four hours the eyes were once more quiet, and she returned to the eserine. After a lapse of two years there has been no recurrence, notwithstanding the existence of firm inextensible synechia in both eyes. The vitreous cleared up so that no trace of the former trouble could be detected. The choroidal margin at the optic nerve showed some increased pigment absorption, but no other change was noted. The ant. perf. ves. also assumed their normal condition.

I am convinced that had we the opportunity more frequently to study carefully iritic eyes before the onset of the acute and painful trouble, we should find the attack had been preceded by an interval of dim or weak sight, with disease of the choroid or retina, or both. In the case of Mrs. H., I had the opportunity to observe, first, the haziness of the vitreous body, and to follow subsequently the painful history of relapsing iritis extending over more than three years. These attacks were invariably preceded and accompanied by increased dimness of sight, due to increased opacity of the vitreous humor, as I had repeated occasion to witness. I did not hesitate to diagnosticate disease of the ciliary region of the choroid tract, notwithstanding the fact that I could discover no change in the choroid as far forward as I could

study it with the ophthalmoscope. I was, however, borne out in this by the fact of the ciliary tenderness which persisted throughout, by the dilatation of the anterior perforating vessels, and by the material poured out at each exacerbation into the vitreous. This opinion was strengthened furthermore by the inability to use the eyes at a near point.

The opinion that iritis is often secondary to choroiditis or cyclitis receives confirmation in the history of the following case:

Case 1. W. F., æt. 40 years, engineer on coast-wise steamer, came to eye clinic of the University Hospital in April, 1878, with commencing iritis. A month before V. in O. D. had failed, and he had a floating web before it. The iris was discolored and he was suffering from great pain and dread of light. The pupil, however, dilated large medium under atropine, and the vitreous was filled with large grayish webs and black masses, which floated freely about with the movements of the eye. V. O. D. counts fingers. In O. S. $\frac{20}{XL}$. He gave a clear syphilitic history, and was just recovering from mucous patches in the mouth. He was admitted to the wards of the hospital, and after a tedious treatment finally recovered without post. syn. and V = $\frac{20}{C}$.

During his residence in the hospital, he complained of failing V. in O. S.—V=$\frac{20}{LXIV}$—veins of ret. large and tortuous, and the retina hazy throughout. Three days later V. had sunk to $\frac{20}{LXXX}$, and the vitreous was filled with numerous floating opacities.

Under mercurial inunctions these rapidly cleared up, and he was discharged June 20, with O. D. V. $\frac{20}{LXIV}$ O. S. $\frac{20}{XXX}$. The following December he returned with failing V—dread of light and cil. redness. He remained under observation for over two years, in the meantime having repeated attacks of iritis. He carried with him a sol. of atrop. sulph., which was applied as soon as he noticed any aggravation of his eye trouble, and thus prevented formation of adhesions to the capsule. He had many more relapses of dim sight on three separate occasions, affecting the left eye also, which, however, never resulted in iritis. The patient was an intelligent man, and soon learned to treat himself with much skill. He had learned that, unmolested, his attacks of increased impairment of vision in a few days resulted in attacks of iritis. He therefore did not wait for the attack, but began treatment at once. He would swallow a saline cathartic, instil his atropine solution, don his smoked glasses, give up all attempt at near work, and quietly await results. If the attack threatened notwithstanding these measures, he applied leeches, which he carried with him while at sea as a precautionary measure. The attacks in the left eye were ushered in by flashes of light, and either a hazy retina or cloudy vitreous, soon to be followed by floating opacities.

In this case there can be no question but that the recurring iritic attacks were consequent upon increase of the choroidal disease. Furthermore, the recurring attacks of iritis, both in Case 1 and Case 2, demonstrate the truth that relapses of iritis are not necessarily dependent upon the presence of synechia, and lend support to the assertion of Schnabel (*loc. cit.*), that "experience has taught me that eyes possessed of synechia are no more liable to relapses of iritis than those which have passed through an iritis without retaining any synechia."

I have been greatly interested in the retinal condition present in irido-choroiditis. In Case 2 the attacks in the left eye were attended with all the necessary manifestations for a retinitis. It is improbable that any serious disease of the choroidea can exist without leading to a pathological condition of the retina, and doubtless the reverse may be true. But it must be remembered that any study of the eye-ground in iritis presents great difficulties, because of the almost constant presence of semi-opaque media, and the great dread of light experienced by the patient. In my own experience, I have been more frequently thwarted than successful in the attempt to do so. When extensive synechiæ are formed, there is also very frequently a web-like opacity of the anterior capsule, which precludes any satisfactory inspection of the tissues beyond it.

(*To be continued.*)

MEDICAL EDUCATION AND STATE LICENSE.

BY ROMAINE J. CURTISS, M. D.,

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The reader of medical journals during the last few months must be impressed with the general complaint that the profession is overcrowded, and must have also taken note of a general remedy that has been suggested, which is to separate the teaching power and the licensing power, or to permit teachers to educate, but to take away

their power to grant diplomas which the state is bound to respect.

The structure of this complaint is built up of certain factors, and so is the structure of the proposed remedy; both of which factor classes I will enumerate, and venture an attempt to analyze.

THE COMPLAINT.

1. The profession is said to be overcrowded because there are upwards of 80,000 doctors in the United States—a proportion of one to six hundred of the population. The proportion is alleged to be incompatible with the professional activities, or "practice," by which a doctor must make his living, and support his family, and lay up money for a rainy day, and for his children.

2. The overcrowding of the doctors is said to be caused by the too numerous medical colleges, which entice, partially educate, and grant diplomas to young men far too numerous to mention. The standard of medical education is declared to be too very, very low, and that it must be raised, not by educating a greater number, but a less number to a higher standard; and to do this, personal liberty in education, both for student and teacher, must be taken away.

THE REMEDY.

1. The factors of the proposed remedy are to lessen the number of medical colleges by legal proscription, of course; taking away their charters very likely, and refusing to charter more. When the number of colleges in the United States is reduced to five or six, then the faculties are to be appointed by the political machine, and the term of study of a limited number of students is to be increased to five or ten years, during which time they are to be crammed with special questions and answers in "medicine" and the allied sciences; and when they are considered to be sufficiently crammed with these special facts and fancies, they are to be examined by a board appointed by the political machine, and if found qualified they are to be licensed by the state to practice medicine.

2. Some of the more zealous of the medical prohibitionists suggest that politics should not only control medical education in colleges which are run by individual or corporate enterprise, but that the government should start a medical college, or should take charge of medical education entirely, just as the government does the post-offices. These enthusiasts, who are so afraid of private enterprise, say that the only medical college, or at least the head-centre college, should be in Washington, and that the faculty ought be appointed as postmasters are—perhaps under civil service rules—and should the exigencies of the service require, then perhaps a college or sub-college might be established in St. Louis, and perhaps other cities.

COMMENTS.

I will offer comments on the preceding propositions, under the heads of (*a*) Causes of the Alleged Over-crowding of Doctors; (*b*) The Nature and Quality of Education; and (*c*) The Relation of Government to Individual Rights; and will try to show the fallacies of the propositions, and the true relations of medical education and the doctors to each other and to politics; and take a little look for the true sources of relief, should it really be learned and experienced that doctors are too many and too ignorant.

(*a*) Are the doctors too numerous, too poorly educated, and if so, what is the cause?

The principal evidence, so far as brought forward, of too many and too ignorant doctors, is numerical. The proportionate ratio of the physicians to the total population is given, and the assertion made that the number is too great. Obviously there is no proof of the proposition in these figures. The figures lie in the light of known professional success, for the doctors, with the exception of the clergy, are the longest-lived class, and I have never heard of the righteous seed of Æsculapius either begging or stealing bread. Nay, if the doctors will refuse to treat patients without pay, in dispensaries and private practice; or even withhold the chromo to entice the patient, in addition to the gratuitous treatment, then, perhaps, the public would think doctors not too numerous, and those philanthropists, as a class, might outlive the clergy.

The only evidence of the overcrowding of a working, or business, or professional class, which is at all approaching proof, must be that a certain proportion are unable to make a living by their calling, or physiological activities in this special line, whatever it may be.

Now, there is no general evidence or proof from this source which proves the proposition. Like all other callings, the profession has members who fail to adapt themselves to the character of activities required in order to be successful in getting a living, and are obliged to leave it for something else. There are thousands of people on earth who can not adapt themselves to anything, and are supported instead of being killed by the community; yet the population, at large, of the earth has not put in a complaint against the procreation of the species—at least since the day and labors of Malthus.

The cry of professional over-crowding is simply a professional trade-union howl. It is the regard for self, with the other fellow left out. It embraces all that is selfish, with nothing that is altruistic. It is conservative in the direction of self-preservation, but the element of duty, which gives the other man liberty to make a living also is absent.

The social law (which ought to be adopted by the "Code") is that all men have equal rights to exercise their gifts and faculties in pursuit of a living and happiness; and it is a corollary, that while all men have this privilege, they must all be subject to the other side of the proposition, which is that they must not interfere with each other's rights. To specialize in a medico-ethical direction, the conclusion is that no body, or organization of medical men, have any ethical right to declare that the profession is overcrowded, unless the proof can be shown, nor to take any steps to prevent by law the entrance of any person upon the study and practice of medicine, when other things are equal. The social law of equal rights and equal ethical duties in medicine will not allow any corporate sect or body of medical gentlemen to prescribe anything different for medical students than what the same gentlemen enjoyed, or to which they were subjected. A higher medical education can't be brought about in this way. The demand must come from natural competition in professional life, under the law that the fittest shall survive and propagate his kind.

But there is a feature of ethics having most important relations to the over-crowding of doctors, which comes within the range of legal control, and should engage the attention of medical gentlemen who are so willing to devote their services to the welfare as well as the "dignity of the profession." I allude to the charity (?) work of doctors in hospitals, dispensaries, and private practice. This alleged charity is the chief stumbling-block to professional success and to professional dignity. This charity represents millions of money every year, and is all money that should be paid to doctors. It is money that should be paid to the great over-crowded crowd who rush in and beg for a chance to do the work without pay and without price. Charity, in a civilized community, should always be at the expense of the corporation, and should not be individual, especially when the gift represents money that could be earned by another. When a doctor consents to attend a poor patient for nothing, or a public pauper for nothing, he is robbing the profession, as a class, of the cash value of his services. It is such work as this that makes the profession overcrowded. It is this kind of work which is, above all else, unethical in medical practice; for the money is taken indirectly from the pockets of doctors, and is a contribution of the profession to the community at large, which the profession is not able, especially in its over-crowded state, to contribute; and it must be told that the community do not rob the doctors of this money, but a few doctors, who have "a higher medical education," are the criminals before the Court of Ethics.

This feature of medical practice is so heavy with ethical outrage toward the medical profession, and of injustice to the public or governments, that it is difficult enough to say so little about it. I will leave the subject to the prayerful consideration of every doctor who feels a lively interest in his brother's education and prosperity, and will proceed to consider other features of the question.

The relation of medical colleges to the number of doctors, whether large or small, is certainly not as stated in the "complaint" or the "remedy." The fundamental law which determines a man's business or calling, as well as determines the production and consumption of all material, is called the law of supply and demand. The colleges are a means between supply and demand, and are themselves demanded, or they would not be supplied. Among the more immediate antecedents causing the supply of students, is to the fact that doctors instigate young men to become students in medicine. The young man gets his ambition and resolution in this direction from the example—the professional excellence, grandeur, education, dignity, and wealth—of the man who becomes his "preceptor" and not by gazing on the outside walls of a medical college. The young man may be a son or neighbor, or only the hostler and office-boy of the doctor. At any rate, the fact cannot be disputed, and every doctor's history will show it, more or less, that such are the initial circumstances, or conditions, or forces, which entered him at the wicket-gate, at the right beginning of the pilgrimage—provided he did not climb over the wall 'way down the walk, and register as a medical pretender.

Now, there being about 80,000 doctors in the United States, with strong tendencies to become preceptors, it would be interesting to know how many of them have sons, or office-boys, or neighbors, or prospective sons-in-law, to whom they are, even at the present time, the "preceptors."

During the past fifteen years, there has been a triennial crop of from five to fifteen thousand medical students. To accommodate these students, the colleges have rapidly increased. No one need deny that the people who are the proprietors of the colleges are beneficiaries, directly or indirectly. There is great honor in being a medical "professor," and acting as hero to a full clinic and dispensary, and consulting surgeon to a hospital; so that the demand for colleges and teachers has never suffered for lack of this material, though there may have been some deprivation in places, of other *material*. As is well known, the colleges in larger cities have been overcrowded with students. It is not unusual that the class of such colleges has numbered every winter from four to seven hundred. Colleges in smaller towns "have had no reason to complain," and it may be true that in most towns of the United States with a population of 100,000 and over, the town has ambitions and pretensions of being a centre for railroads, manufactures, elevators, and boards of trade, as well as a "medical centre."

Obviously, then, if the colleges are not the initial cause of the large number of students, the proposed remedy of lessening the number by law or other compulsion, say the gentle pressure of ethics, will not lessen the number of students, who will simply overcrowd the colleges which are elected to survive. So long as men, whether in the ratio of one to six hundred or one to three hundred, can make a living in the practice of medicine, they will get as good a medical education as they must have in order to compete successfully, and be happy as living members of the most foolishly charitable and most foolishly uncharitable (in different directions) of any class of people on earth.

Looking at things as they really are, then, the candid thinker must reach the conclusion that the charge of over-crowding is untrue, and is founded upon the selfishness of the persons who make the charge; and this conclusion is further warranted by the proposed remedy, which seeks to strangle the young brood by imposing an impossible standard of education, destroying educational means, and turning the whole matter of education, and right to be medically educated, and to practice medicine, over to politics. Verily, such a proposition has not been promulgated since the doctrines of Malthus were made public.

But, looking further, we may find very readily what are the causes of the demand for doctors, which it may be admitted is rather fully supplied. The cause is the lack of sanitation. People are unable, and unwilling, to prevent disease. They want the disease "cured" which afflicts them; they do not want it prevented. The curing of these diseases, and the hurts which afflict the people of the United States, keeps 80,000 doctors "quite busy;" at least, it is the lack of sanitary precautions, and the alleged curing of the diseases of 53,000,000 people, which creates the demand for doctors, and which supply is furnished by young men who become students of preceptors, and then students of colleges.

The ethics of medical science (every science has an ethical side) is, it must be plain to every thinking person, to promote the knowledge of the prevention of disease among the people—professional people, as well as the laity. There is not much medical ethics in a body of men who call vainly for a higher standard of education in curing diseases where there are no cures known, and say too little about what is known of prevention, and then "cure" people in great part for nothing, and quarrel about the great number of men among whom the spoils of the paying patients must be be divided. From such a class of men, one might expect, would originate the impossible, and deplorable, and disgraceful method of turning medical qualification over to the political machine, with the object of diminishing professional competition.

(*To be continued.*)

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL,

BY CHARLES K. MILLS, M. D.,

Neurologist to the Hospital, and Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic.

Reported by WILLIAM H. MORRISON, M. D.

Tumor of the Brain—Autopsy.

GENTLEMEN: I have here the specimens from a case on which I made an autopsy this morning. It was a case of multiple brain tumor, which I had seen in consultation. From the details of this case you can obtain the essential points in the diagnosis of brain tumors.

The patient was an Irishman, 19 years of age, who had been in this country only one year. He was perfectly healthy before he left Ireland, and he remained healthy for eight or nine months after coming to America. Three or four months ago he began to suffer with headaches. At first they came and went, but soon lasted a longer time. He also had, although not to a marked degree, attacks of vertigo. About six or seven weeks ago, while at his work, he was suddenly attacked with

partial loss of power in the right hand and arm, and also complained of a little weakness in the leg. A little drawing of the face was noticed. He consulted a physician, was prescribed for, and the paresis disappeared, and he went to work. During this time he was working as a hostler in a street-car stable. Three weeks ago he was kicked on the side of the face by a mule. After this, the headaches became much worse. There was some loss of power of the right side, but no actual paralysis. He continued to work until two weeks since, when he was compelled to go home and take to his bed. I saw him first about a week ago.

He was at that time in a dull condition, although not comatose. He was on his back, entirely paralyzed in his right arm, nearly so in his right leg, the face drawn slightly to the left. There was also ptosis on the right side, and doubtful strabismus of the left eye; that is, it could scarcely be determined whether or not a squint was present. I examined him very carefully for sensation, and although he could give no response in words, he could indicate where he felt pain. This examination showed that there was loss of sensation, although not absolute, on the right side of the face. As soon as the middle line was passed and the instrument was applied on the left side of the face, he began to respond, and he evidently suffered pain. He undoubtedly suffered severe pain in the right side, and he so indicated as long as he could indicate anything. He had both anæsthesia and pain. This is not an impossibility. With depression of sensation, a condition of this kind may exist, just as there may be severe pain in the trigeminal nerve, as in anæsthesia dolorosa, with loss of sensation to certain tests. He had at times slight twitching of the right hand. During the last week of his life, he lost control of the bowels and bladder. A little irregularity of breathing which approached the Cheyne-Stokes breathing was observed, although there was no absolute descent and ascent in the respirations, simply a little irregularity approaching this type before he sank into a stertorous condition. He had complained somewhat of his eyes, but no ophthalmoscopic examination was made. He sank into a stuporous condition, and died yesterday.

My diagnosis was a tumor or an abscess, more probably the former. I thought that the tumor was probably due to syphilis. There was no known history of syphilis. It however seemed to me that no other diagnosis could be made.

The post-mortem examination was made this morning, and here is the result: Here is a mass —small, it is true—but unquestionably a tumor of some kind. Here is a much smaller mass, not much larger than a pea, from the inferior angle of the right lobe of the cerebellum. In addition to these masses, some meningitis was present at the base of the brain, with a little effusion. There was a little streaking over the fissures of the surface of the brain. The pia mater was injected, but about as much on one side as on the other.

This larger growth was almost exactly in the ascending frontal convolution, at the junction of its middle and upper thirds. A portion of the mass (perhaps a third) was on the convexity of this convolution, while the rest was in the fissure of Rolando. The growth did not involve the ascending parietal convolution. There was no pus, as often occurs in cases of some standing, nor any breaking down of tissue. It was simply a case of localized tumor, involving the motor region of the brain. It was absolutely localized in the ascending frontal convolution, and only affected the ascending parietal, if at all, by pressure.

A slight discussion of this case may be profitable. This is a case in which, if the trouble had been recognized early, the man could, perhaps, have been cured; that is, if any case of cerebral syphilis can be cured, and undoubtedly some can be. If this had been recognized several weeks ago, the fatal result might have been prevented. When he came under the care of his attending physician, two weeks ago, the disease had advanced too far to be relieved. This illustrates the importance of an early recognition of troubles of this kind. I may, perhaps, be taking too much for granted; this may possibly be a tubercular growth, but I do not think so.

At the time of his attack he was living in a malarial district and had been treated for malarial trouble, without any reference to the special condition in the brain. The peculiar phenomena were not recognized.

I believe it within the bounds of possibility to have successfully removed this cortical growth by operation, if no basilar trouble had been present.

He had the symptoms which I should lay down as the typical manifestations of brain tumor, and which will enable the diagnosis to be made in the incipient stage or in any step of its progress. A tumor of the brain is nearly always a tumor of the membranes. It usually is a growth from the pia mater or the dura mater, and very commonly, when the post-mortem is made, these two membranes are found agglutinated together. Many of these tumors originate in the pia mater. Such was the case in this instance. The dura mater was not involved in the growth. It was a highly-congested condition which was most marked near the site of the growth, but it was not adherent to the pia mater.

The general symptoms of brain tumor here present were headache, vertigo, mental disturbances, hyperæsthesia, and usually choked disk. All the post-mortem appearances indicated that the man had this condition of the eyes, although we were unable to obtain an ophthalmoscopic examination before death. Hyperæsthesia is very common in cases of brain tumor, even on the side of paralysis. Vomiting, usually a symptom, was absent. The other phenomena depended on the seat of the lesion. More or less marked paralysis, and often spasm, are present when a tumor involves the motor region. In this case, spasm did not exist except as a slight monospasm. There was a history of paresis which came, disappeared after a time, and returned. This is often the history of a tumor of the convexity, which is not of large size. After a time apoplectiform attacks occur, and the condition remains permanent.

This case bears out the doctrine of localization. The localizationists, and I am inclined and have always inclined to be a localizationist so far as the functions of the brain are concerned, would account very beautifully for the paralysis of the arm by the position of the tumor pretty nearly in

the middle Rolandic region, here towards the middle of the ascending frontal convolution. According to the localizationists, this Rolandic region is divided into three elliptical regions, the upper one containing the centres for the leg, the middle one the centres for the arm, and the lower one the centres for the face, and a little anterior to the latter the speech centres are located. In this case there was no breaking down of the white matter behind the tumor. It was a beautiful instance of a strictly localized growth. The paralysis was due to this growth in the motor cortex. Inhibitionists might say that the paralysis was due to the irritation of both growths irradiated to certain regions and inhibiting motion. As a matter of fact, we know from experience that if the tumor had been in the occipital lobe, there might have been sensory phenomena, headache, vertigo, and the general phenomena of brain tumor, but there would not have been paralysis, or at least not localized paralysis. A tumor in the antero-frontal portion of the brain would have given the general symptoms of a brain growth, but not paralysis. Whatever view you may take of localization, whether you take the view that there are true volitional, psycho-motor centres, or the view that there are certain regions in which lines of force are concentrated, without question is a sort of localization.

I should say that the paralysis in the right arm and leg was due to this tumor of the convexity, and to the irritation and pressure which it exerted on the general region in its proximity. We get not only the fixed pressure, but the irradiation and the impairment of the region in proximity to the growth.

Let me say a word as to the other growth and the other phenomena. The tumor on the convexity of the brain ought not to have killed this man, or at least not so soon. I have made autopsies of cases which had lasted for a year or two, with larger growths than this. He had also a tumor in the right side of the cerebellum, in close proximity to the pons and medulla, causing some pressure, but no destruction, and very great irritation in the neighborhood of the vital regions. It undoubtedly gave rise to a local meningitis. There was, however, no destruction of tissue. There was also effusion at the base. He died more from this meningitis and effusion at the base than from the larger one. The ptosis and the trigeminal anæsthesia may be accounted for without going into minute details, by the condition at the base of the brain.

You should always be on the lookout for cases of this kind. Within the past year I have been called into case after case, where if the correct diagnosis of syphilitic disease of the brain had been made, instead of malaria, or some other trouble, the chances of the patient would have been much better. Such cases should be put on the use of iodide of potassium and mercury, ergot and bromide of potassium being given to relieve the congested condition.

In view of the history of traumatism, I may say that I carefully examined for any evidence of fracture of the base or convexity of the skull, but found none. There were no ecchymoses such as are present in some cases of concussion without fracture. I have no doubt that the growth was at the bottom of the trouble, and that if the traumatism did anything, it simply served to light up the brain trouble.

Medical Societies.

PHILADELPHIA NEUROLOGICAL SOCIETY.

A stated meeting of the society was held Monday evening, April 28, the President, Dr. S. Weir Mitchell, in the chair.

Dr. J. Hendrie Lloyd read a paper entitled

The Report of a Case of Pseudo-hypertrophic Muscular Paralysis with Bone Lesions.

Sarah C., æt. 17, was one of the first inmates of the Home for Crippled Children, after its establishment by Mrs. Innes, in the early winter of 1883. The patient presented, when first seen, an appearance of great obesity. The fat was generally distributed to the face, neck, trunk, gluteal regions, arms (partial), and legs. Some of the muscles of the forearms were slightly wasted. The appearance was one of great robustness of health, and the accumulation of fat and general outlines of the figure were such as to suggest an over-fed, middle-aged woman, rather than a girl but half advanced in her teens. Upon closer inspection there was discoverable a strange contrast to this appearance of health. It could be readily seen then, that the patient was a complete cripple. So absolute was the loss of power that she either lay supine, or was propped with pillows in a large chair, the body spreading out, as it were, by the mere force of gravitation, and without muscular resiliency or the control of will power.

The girl was, and now is, so helpless that it is impossible for her to assume the sitting from the reclining position; she cannot turn upon her side without assistance, and it is with the greatest difficulty that as she lies upon her back she crosses one leg over the other. She retains, however, some power in her arms, especially the forearms, and although these regions are evidently wasting, they alone seem to possess what fraction of power the girl can command, and with them she can sew, crochet, and do other work requiring skill and training.

The details of her condition are briefly as follows: The muscular system presents in many places marked enlargements. These are evident especially in the deltoid, lumbar muscles, and calf. The muscles in these regions have a dense, doughy feel, and are overlain with subcutaneous fat, with which they appear so intimately connected that it is difficult to detect their exact limitations. They are very little, if at all, subject to the will, so that their passive condition and their envelope of mottled and lifeless-looking skin is very suggestive to one who handles them, of some profound pathological change.

This pathological change has been demonstrated by the microscope, and is in accord with the classical description of pseudo-hypertrophic muscular paralysis. With the aid of the little instrument of Dr. Harte, of this city, specimens of the muscular tissue were taken from the lumbar region and the calf. Dr. William E. Hughes kindly

prepared these for examination, by teasing them, as the fragments were too small for embedding and cutting. The specimen from the calf presented under the lens an interstial hyperplasia, with granular changes in the muscular fibre, and a marked loss of striation. There was not any appearance of secondary fatty change in the connective neoplasm, which may possibly be accounted for by the "teasing" process. The specimen from the lumbar region was not apparently from the muscle, but was simply adipose tissue.

The reactions to the faradic current in the deltoid and calf muscles are very feeble. The reactions with sponges on median and ulnar nerves of forearm—the muscles of which are wasting—are about normal, or, at least, much more active than in the hypertrophied muscles. So, too, in the peronei. The reactions of degeneration to the galvanic current have not as yet been sought for.

The girl was weighed some months after her admission to the Home, and after she had evidently lost much flesh, turned the scale at 124 pounds. When first admitted it required the combined strength of two men to carry her up stairs, and she, no doubt, at that time weighed considerably more. Her stature is not tall, and her age at that time not seventeen. The measurements of her limbs are at present as follows: Upper extremities, arm, right, 12½; forearm, 9; arm, left, 13; forearm, 9. Lower extremities, right thigh, 21; leg, 13¼; left thigh, 21¼; leg, 13.

These figures show an increase of bulk during the last few months. The girl's mind is fairly bright. She is something of a giggler—simpering and foolish—but her defects may be partly, at least, accounted for by lack of opportunity and education. She cannot be called a feeble-minded child. The patient's history is very obscure. Her mother "ran away with another man," as her brother explains in a letter, and she has passed her life in public institutions. This brother says he thinks she was always a cripple, but not so bad but that she could at one time walk. Her general health is excellent; she attempts to add constantly to her exuberant proportions with a vigorous appetite, and is now putting on fat. The heart and lungs are normal. She occasionally suffers pain from the spinal curvature, to which reference will be made in a moment. There is no evidence of heredity. She at one time menstruated very freely, and as often as every two weeks.

But while the appearance of the muscles is so significant, there are changes in the bones of still greater interest, and to which I desire to call your attention. These changes have occurred in the spine, and in the elbow and knee-joints. The spine is in a state of constant scoliosis, with its greater convexity to the right. One year ago, this convexity could be thrown to the left by one attendant lifting the patient by the shoulders, and another making pressure on the vertebræ. It would not remain thus, however, and was evidently uncomfortable to the girl.

The elbow-joint presents a unique appearance, which, as far as I am at present informed, has not been described in any other reported case of pseudo-hypertrophic muscular paralysis. It is exceedingly mobile, due apparently to an atrophy of the epiphyses of the bones. Thus, the joint can be bent backward at a marked angle, quite impossible when the olecranon and its opposing surface are intact. The attachments of the head of the radius and upper end of ulna are loosened, allowing a sort of wabbling and limberness in making pronation and supination. This preternatural mobility is increased by a somewhat similar condition of the head of the humerus in the glenoid cavity.

The wrist-joint, also, is not firm and staunch (depicted by Dr. Taylor). The chief defect of the knee-joints is an atrophy of the patellæ, which are not more than one-half their normal diameters.

In bringing this case to your notice, I desire especially to call your attention to the fatty phenomena and to the bone lesions. The literature of the subject presents nothing which has added much to the original description of Duchenne, supplemented by a few very thorough post-mortems—especially of Eulenberg and Cohnheim. Duchenne said that the interstitial connective tissue proliferated with the production of fibrous tissue, and that this increase was associated with fat vesicles; also that the striation was preserved, but was very faint. He does not bring into prominence the fatty changes, which seem to be secondary to the hypertrophy of the connective tissue. Other writers, apparently following Duchenne, or perhaps not seeing cases in which fatty changes are prominent (for they are rarely as marked as in our case), have not discoursed much upon the phenomena of lipomotosis. Duchenne says "the subcutaneous tissue contains very little fat." Eulenburg, however, has brought these changes prominently forward, for in his monograph—founded upon his post-mortem researches—he says there is a great increase of subcutaneous fatty tissue, "most noticeable in places where nature has provided an abundant panniculus;" and, moreover, says of the intermuscular changes that there is first a proliferation of connective tissue, which is transformed into fatty tissue. I think that our case is a striking example of this pathology.

The bone lesions in this case are interesting in view of the tendency at present to connect bone and joint changes with diseases of the central nervous system. This speculation is not a new one, for it was a suggestion of Prof. J. K. Mitchell, years ago—so he is quoted—that rheumatism may be of neurotic origin. Arthritis deformans has been recently attributed by Weber to a neurotic source, but the argument is largely from a therapeutic standpoint, viz: as the disease does not improve on anti-rheumatic treatment, and does improve on general tonic and galvanic treatment, ergo—a neurotic origin. There are undoubted bone lesions, caused by disorders of the cerebro-spinal axis, as has been shown by Prof. H. C. Wood in a recent clinical lecture. He refers to bone changes in insanity, especially dementia paralytica, in hemiplegia and locomotor ataxia. These changes are described as atrophy, hypertrophy, and inflammation. A true causative relation is shown, but we are wahting in an exact pathology as to what trophic centres, if any, are affected, and in what manner. Bone lesions in pseudo-hypertrophic muscular paralysis have not been brought into any prominence in the investigations which I have consulted, and in many cases not even referred to. Scoliosis, which ex-

ists in one case, is mentioned by some and ascribed to the weakened state of the muscles—no doubt a true explanation; but such changes as I have described in the elbow and knee appear to be unique.

As a probable explanation of these impaired bones, I am reminded of the dictum of Duchenne. It was not the belief of this great clinician that pseudo-hypertrophic muscular paralysis was at all identical with progressive muscular atrophy, or that it was of central origin. It seems probable that the case before us may be an expression of that faulty development which overtakes, in some defective births, all tissues, and that pseudo-hypertrophic muscular paralysis, associated, as it often is, with impaired brain and nerve function, may be but a form, in some cases at least, of congenital deficiency of development power.

Dr. Charles K. Mills said he had that day seen a case at the Philadelphia Polyclinic, interesting in connection with Dr. Lloyd's remarks on bone and joint lesion originating from the nervous system. The case was that of a mulatto woman who is changing to a bronze color, and in addition, the upper half of the body is affected with muscular atrophy. The joints, more particularly the smaller ones of the right hand, are swollen, rigid, and painful; the hands were in a half-closed position. She had perverted sensation in her face, loss of the sense of taste, difficulty of swallowing, and could only open her mouth half way, on account of the muscles of deglutition and mastication being affected. The case illustrated the connection between muscular degeneration and joint and other trophic affections.

Dr. N. A. Randolph read

A Note on the Behavior of Hydrobromic Acid and of Potassium Iodide in the Digestive Tract.

I venture to present before the society a brief note upon a subject not strictly neurological, but having direct bearing upon the relations entertained to the processes of digestion by two drugs, which are of interest to the neurologist.

In a series of artificial digestions, in which hydrobromic acid was present in the digestive mixture, in amount corresponding to the therapeutic dose, I have noted:

(*a*) That salivary digestion was completely suspended, whereas

(*b*) The peptonization of proteid food-stuffs was in nowise retarded, the variation from the normal, if any, being toward an acceleration of this process.

It is evident, therefore, that, other things being equal, the appropriate time for the exhibition of this drug is immediately upon the cessation of salivary digestion within the stomach, or in other words upon the first formation of free acid within that viscus.

Recent studies* have shown that the acidity of the gastric contents, found even in quite early stages of digestion, is not due to the presence of *free* acid; and the ingenious observations of Von den Velden† go far toward proving that the development of free acid within the stomach does not occur until from forty-five minutes to an hour after breakfast, and from one to two hours after dinner. These results were obtained chiefly by the use of methyanilin, violet, and tropæolin bodies, delicately responsive, by color-change, to the presence of free acid. There is little doubt in my mind that hydrochloric acid is developed in the stomach at an earlier period than that above indicated, but it seems very probable that by immediate combination with albuminoid it loses somewhat its characteristic activity. This is illustrated by an observation made in the course of this study, namely, that the addition of small amounts of potassium iodide to dilute solutions of acid albumin containing two-tenths of one per cent. of hydrochloric acid, does not result in the liberation of iodine. The addition of the same amount of the iodide to the same quantity of an aqueous solution of hydrochloric acid of the same degree of activity results in an immediate liberation of iodine.

This interesting discovery of two stages of acidity in the gastric juice has, I believe, not yet been incorporated in the text-books. It serves to reconcile the contradictory opinions so frequently found as to the value to the economy of saliva as a digestive fluid, and explains the completely diverse results obtained by such careful workers as Frerichs,* and Bidder and Schmidt.†

Besides an observance of the time-limitations just indicated, I would suggest the advisability of milk as a vehicle for the administration of hydrobromic acid. The curd thus formed is fine and flocculent, the mixture closely resembling buttermilk in taste and appearance, and in no wise suggesting medicine. I have taken as much as a tablespoonful of the dilute acid in a tumbler of milk, without any repugnance. The milk used must be raw. With this, as with most other acids, boiled milk gives tough and bulky coagula.‡

As regards the exhibition of the iodide of potassium, the rationale of its time relations is altogether different. Although this drug is distinctly alkaline, its presence in a mixture of hydrated starch and saliva certainly does not suspend the action of the amylolytic ferment, nor, so far as I can determine, materially retard it.‖ When, however, iodide is added, even in very small amount, to a mixture of artificial gastric juice and egg albumin or fibrin, the rapidity of peptone formation, as determined *by the nascent* murcuric iodide reaction,§ or by the biuret reaction and control test, is greatly diminished. This result is not due to a slight diminution in the acidity of the solution, caused by the addition of an alkaline body; for the same effect is noted when the acidity of the solution is at once again brought up to the normal degree. The pepsin is apparently but little, if at all, affected by the

*Deutsch. Archiv. Klin. Med. xxiii, 369. See also Jahresb. ü. d. Fortsch. d. Thier-Chemie, 1880, p. 302, and Danilewsky, Centralb. f. de Med. Wiss., 1880.

†Zeitsch. f. Physiol. Chemie iii 205.

*Wagner, Handwoerterbuch d. Physiologie, iii, a, 772.

†Bidder und Schmidt, Verdadung u. Stoffwechsel, p. 27.

‡Randolph; Verbal communication on differences between raw and boiled milk.—*Proc. Acad. Nat. Sci. of Philadelphia*, 1884.

‖Langley & Eves, Jour. of Physiologie, iv., p. 19, have shown that although a distinctly alkaline medium retards salivary action, the presence of a proteid body in the digestive mixture will prevent this retardation.

§Randolph; A reaction common to peptone and bile salts.—*Proc. Acad. Nat. Sci. of Phila.*, 1884.

presence of the iodide, if we may judge by the indifference of ptyalin to the drug, and by the fact that quantities of the iodide corresponding to the maximal therapeutic dose neither entirely suspend the peptic activity, nor induce greater retardation of the digestion than do much smaller quantities. A slight effect is exerted by the iodide upon the proteid food-stuffs, evidenced in an increased toughness produced in, *e. g.*, fibrin, and when the drug is abundantly present, in the acquisition by the albuminoid of a slight yellow tinge, due to staining by iodine, which is liberated by the free acid of the artificial gastric juice.

The most important factor in the delay of peptonization lies in the power possessed by potassium iodide, even in relatively minute quantity, of precipitating acid albumen in solutions which shall, after its addition, possess the normal degree of acidity of human or even canine gastric juice. The same may be said of potassium bromide, and of several other analogous compounds. The precipitation effected by the iodide is so complete that when solutions of acid albumin are thus treated and filtered, the still acid filtrate yields no trace of proteid matter. This observation, which is doubtless old, though I have as yet been unable to find it recorded, tends to show that the time at which the administration of this drug is least liable to disturb digestion is either during or immediately after the ingestion of food.

There are several sources of error in attempts at deduction from the results of artificial digestion, as ordinarily performed. Thus the continued activity of a digestive fluid is largely conditioned by the removal of the products of its action soon after their formation. This occurs in the living viscus, but not in the test tube of the experimenter. The maintenance of the normal temperature of the active stomach is, of course, readily accomplished; but the conscientious imitation of other factors in the normal digestive process implies not only a constant mechanical intermingling of food-stuff and digestive fluid, but the continued addition of small amounts of the digestive fluid itself. I have nearly perfected an apparatus which in a large degree obviates the difficulties just cited.

In it artificial salivary digestions are conducted in a thin tube of fish-bladder, closed at one end, which is, by mechanical means, kept in gentle agitation. The contents of this tube are maintained at the proper temperature by a surrounding body of warm water, which is slowly but constantly changed. For gastric digestions the animal membrane is substituted by one offering equally great surface for dialysis, but resistant to peptic action. Despite, however, the inaccuracies attending existing methods of study, the following deductions from the facts, old and new, which are here presented, appear justifiable:

1. That the earliest production of free acid within the stomach is approximately three-fourths of an hour after a meal; its appearance being still further delayed by the ingestion of food in large quantity.

2. That hydrobromic acid is liable to impede the digestion of starchy foods when administered within the interval just named; and

3. That iodide of potassium should be given at such time and in such dilution that its absorption shall be complete before the appearance of free acid within the gastric contents.

Dr. Francis Dercum said he thought the suggestion of using milk as a vehicle for hydrobromic acid, a very good one.

Dr. S. Weir Mitchell spoke of the utility of hydrobromic acid given with bromide of potassium.

Dr. E. T. Reichert referred to the paper recently written by Dr. H. C. Wood, on the "Use of Hydrobromic Acid in Epilepsy." He said it confirmed the conclusions which he had come to in a paper on the physiological action of hydrobromic acid, published some years ago. He believed that hydrobromic acid could be substituted for bromide of potassium, as it had the same physiological qualities as the bromide.

Dr. S. Weir Mitchell read a paper on

Œdema of Hysterical Hemiplegia and Unilateral Swelling in Hysteria Generally.

Dr. Charles K. Mills said he had seen similar cases to those reported by Dr. Mitchell, but had not studied them closely. In a case of hystero-epilepsy, with hemi-anæsthesia, etc., there was œdema of both limbs, but the swelling was most marked on the affected side and was chiefly below the knee. In another case recently seen at the Philadelphia Hospital, the swelling of the limb was very decided.

In some cases of hysterical paraplegia he had noticed these swellings, but had not made them a special study. He also referred to a case of hysterical contracture of the wrist with marked œdema.

Dr. Sinkler spoke of having seen a number of cases of slight temporary swellings of the limbs in hysterical women. He mentioned a case of this kind which he had seen at the Orthopædic Hospital. It was that of a woman whose hands, feet and legs would become, at times, slightly swollen; but it was temporary, as it would entirely disappear.

The Treatment of Scrofulous Pyonephrosis.

The treatment recommended by Dr. R. Clement Lucas (*Brit. Med. Jour.*, July 5, 1884,) consists in cutting down upon the kidney through the loin, draining, and disinfecting it. Afterwards, when the organ has contracted, should it remain a source of discomfort, it may, with comparatively little danger, be removed without opening the peritoneum. At the time of his report there were two cases of scrofulous kidney, lying in Guy's Hospital, under his care, each with a tube in one kidney. To those unfamiliar with the progress which has of late been made in renal surgery, it may still seem strange that these cases were both operated on before any tumor could be felt in the abdomen. The immediate relief from pain, cystitis, and irritable bladder, in one case amounting to incontinence of urine, is as remarkable as the freedom from pyrexia and general constitutional disturbance after this apparently severe operation. Statistics of nephrectomies clearly show the safety gained by first draining the dilated organ before proceeding to remove it; and he is inclined to think that the ventral or transperitoneal operation will one day be regarded as a scarcely justifiable operation for pyonephrosis.

EDITORIAL DEPARTMENT.

PERISCOPE.

The Fixation of Movable Kidney by Scratching its Capsule Through the Loin.

Dr. J. Greig Smith thus writes in the *Lancet*, July 5, 1884: At present, when the subject of displacements of the kidney is exciting considerable interest, notes of the following case, which was operated upon about a year ago, may be acceptable:

M. W——, aged thirty-nine, a largely-developed, well-nourished married woman, was admitted to the Bristol Royal Infirmary, under Dr. Spencer, in April, 1883, complaining of pain in the bowels, want of appetite, and constant headache. Six years previously she had suffered from a severe attack of inflammation of the lungs, and a month later she was confined of twins. Up to this time she had been strong and well, and her troubles came on subsequently. A year before admission she noticed a tumor in the abdomen on the right side, usually under the ribs, but occasionally low down near the crest of the ilium, or at intermediate points. It was the source of constant worry to her, causing her considerable pain as well as mental anxiety, and she laid on it the blame of all her troubles. There were no other symptoms of importance beyond a yellow discharge from the vagina, which was found to arise from endometritis, and which soon disappeared under the ordinary remedies. Dr. Spencer having effected no improvement by medicinal treatment, and the patient being most anxious to have something done, I was requested to see her. The patient was almost melancholic, with an anxious and worried expression of countenance. The abdomen was lare and pendulous, but thick-walled, and the tumor could not be very definitely made out. It could be moved freely in every direction on the right side of the middle line, and could be made to disappear under the crest of the ilium. It corresponded in shape and consistence to the kidney.

Dr. Spencer's diagnosis was floating kidney with dyspepsia, and he thought that the one caused the other. Personally, though I was bound to admit that all the signs were consistent with floating kidney, yet I thought they just as consistent with solid ovarian tumor with a long pedicle. Two other cases which I had seen, where diagnosis of floating kidney was made, turned out, one on the post-mortem table to be horseshoe kidney, and the other, on my removing it, to be solid ovarian tumor. The facility with which this tumor could be pushed down into the pelvis suggested the possibility that it also might turn out to be ovarian, and I recommended abdominal section, to remove it if not renal, to fix it if renal. This was accordingly done, and the tumor was found to be renal. There was no mesonephron proper, and the kidney was found very freely movable, partly in the midst of, partly with, a sort of flaccid bag of peritoneum and fat. When replaced it could be made to bulge in the loin, where it was readily felt through the skin and muscle. I hoped to be able to stitch it subcutaneously by carrying a long, curved-handled needle through the skin and the surface of the kidney, and tying the catgut suture over the muscles after making a punctiform incision in the skin. But the surface of the kidney tore and afforded no hold to the needle; so with one hand still in the abdominal cavity pushing out the kidney and ascertaining the course of the needle, and the other holding the needle outside, I moved the kidney surface in several directions over the point of the needle, and left it *in situ*. I hoped that the organized inflammatory material so produced would be strong enough to retain the kidney in position.

The case pursued the ordinary course of a successful abdominal section. The antiseptic dressings were removed in a week; the wound was found completely healed, and the stitches were removed. On the fourth day there was a small amount of blood in the urine. All pain from the tumor was gone immediately after the operation, but about six weeks afterwards she suffered from diffuse irregular attacks of abdominal pain, not in any one spot, but generally all over. At this time she had abnormally frequent calls to micturate, and these extended over some weeks. The tumor remained *in situ*, however, and there has been no sign of its reappearance since. I cannot say, however, that the operation has benefited the patient very much. She is nearly as low-spirited as ever, and though there is less abdominal pain than before, there is still a good deal, and the calls to micturate are still abnormally frequent. Possibly the near advent of the menopause may partially explain her symptoms.

Remarks.—I am no advocate of operative procedure in case of either movable or floating kidney, and what was done in this case was rather as a sequel to an exploratory operation than as a deliberate attempt at fixation of the kidney. It would have been easy to stitch the kidney to the abdominal wall; but it is difficult to believe that an unprotected position, close to the surface of the abdomen, and in contact with its constantly-moving walls, can be much better than free movement inside the abdominal cavity. Again, I might have cut down on the kidney in the loin, and stitched its capsule to the tissues in the neighborhood. This would have added to the danger of the operation, and would have rendered only the immediate result more certain, for sutures fixate only as long as they exist. When these are absorbed, the adhesions only remain to connect the united surfaces, and if the artificially inflamed capsule is kept in position while the adhesions consolidate, the effect of sutures might be got. In this case, now that a year has passed, we may assume that the desired result has been attained. In another case I should give a thorough trial to treatment by rest in bed, and carefully applied padding inside an abdominal belt. If this failed, I should perform nephrorraphy by lumbar incision. But a case such as the above teaches us not to be toosanguine as to the immediate goodresult of fixation, and should warn us to hold our hands for a long time, unless the local symptoms were very urgent indeed.

Dislocation of First Lumbar Vertebræ Successfully Reduced.

Before the Clinical Society of London (meeting March 28, 1884):

Mr. N. Davies-Colley read notes of this case. A shipwright, aged 55, was stooping at his work, when a mass of iron, weighing 7 cwt., fell upon the small of his back. He was at once admitted into Guy's Hospital. He was collapsed, but quite sensible. The spine of the first lumbar was three-quarters of an inch to an inch behind that of the last dorsal vertebra. The adjacent spines were even, and formed a continuous series, those above at a level considerably anterior to those below. There was no motility nor crepitus to be detected upon gentle manipulation. He could move his legs, but the right somewhat less than the left. There was impairment of sensation on the outer side of the right leg, and complete loss upon the dorsum of the right foot. Soon after admission extension was applied under ether. Mr. Davies-Colley kept his hand upon the prominence while three assistants made traction upon the legs. The projection was thus gradually reduced without any jerk; at the same time some crepitus and motility could be felt in the last dorsal spine. A plaster-of Paris jacket, similar to the laminated form recommended by Mr. Furneaux Jordan, was applied in the horizontal position, while traction was still being made upon the man's legs. When he recovered consciousness, he was quite comfortable. A more careful examination, two days later, showed that the right musculo-cutaneous nerve was completely paralyzed, and there was some loss of sensation between the first and second toes, where they are supplied by the anterior tibial nerve. For ten days he was unable to micturate, and some small bed-sores formed over the sacrum, although within two days of the accident he could turn over in bed and lie upon his side. On the thirty-fourth day after the accident, the splint was removed. The line of the spine was then quite even. There was no deformity, and little, if any, tenderness. In less than two months after the accident he was able to walk; but he was still unable to evert his right foot. With the help of faradization, he gradually recovered power and sensation; and when he was last seen, in October, no difference could be detected between the movements of the two legs, and the only abnormality in sensation was a slight numbness in the middle third of the outer side of the right leg.

Mr. Bryant, after remarking on the great interest of the case just related, said that the practice therein recommended was hardly sufficiently recognized. He had seen three cases of supposed fracture of the spine in the practice of his colleagues benefited by extension, and had had two cases under his own care where the treatment had been adopted successfully. One of these was that of a man, aged 74, who was brought to the hospital an hour after a heavy sack had fallen on to the nape of his neck. There was paralysis from the nipple-level downwards, no loss of sensation, slight priapism, and great pain in the right half of his body. There was projection of the third dorsal vertebra, with swelling around, and some separation of the spinous processes; there was also fracture of the sternum. Extension was applied, a sudden jerk was distinctly felt, and was audible to the bystanders; the deformity was completely relieved, and so was the pain, which had been extreme. The next day some movement of the toes and of one foot was possible, but on the following day the anæsthesia had increased, and was complete the day after, and he died from respiratory troubles on the seventh day. The examination confirmed the diagnosis of dislocation of the third dorsal vertebra, which was found to have been completely reduced; there was some extravasation of blood into the spinal cord, but not enough to have produced permanent disorganization, and had the patient been younger he might have made a complete recovery. He wished to advocate very strongly the treatment of such cases by extension.

Mr. Howard Marsh referred to a case of Mr. Willett's at St. Bartholomew's Hospital, wherein there was dislocation of one of the lower dorsal vertebræ; extension had brought about replacement, and after death the dislocation was proved to have been completely reduced; but he could give no details.

Mr. Durham had seen Mr. Colley's case throughout, and congratulated him on the result. He did not now regard these cases as so hopeless as he was taught to consider them in former days. He thought that there was some danger in the use of plaster-of-Paris jackets in these cases, except in the late stages, on account of the risk of producing sores, which would be unrecognized and inaccessible.

Mr. Davies-Colley agreed that the jacket would be objectionable, if with a fracture of a dorsal vertebra there was loss of sensation below the umbilicus.

The Actual Cautery in Diseases of the Joint.

In the *Lancet*, May 10, 1884, we read that on the recent occasion of a patient being brought into the operating theatre of King's College Hospital for the purpose of undergoing treatment by actual cautery for disease of the knee-joint, Mr. Henry Smith made some remarks on the employment of this agent. He stated that, whilst in former times the actual cautery had been employed to a considerable extent by surgeons, it had gradually fallen into disuse, in consequence probably of the seemingly cruel and painful nature of the operation, so graphically described by the late Sir William Fergusson in his "Practical Surgery." Since, however, the introduction of anæsthetics, by means of which this potent remedy could be applied without the horrors formerly accompanying it, the actual cautery had been resorted to without scruple, and the pupils attending his class had had recently several opportunities of witnessing the extraordinary benefits produced by its application. He desired to call attention to two other instances of disease of the knee-joint, occurring in females, where the effect of one application of the actual cautery had been remarkable. In one of these cases the disease had been of long standing, the joint being in a state of chronic inflammation, the chief symptoms being severe pain on any attempt to move it, and some swelling. After the employment of various measures, which were of little use, the actual cautery was freely applied, with almost immediate

relief and ultimate cure. In the other case, that of a woman who had been suffering from chronic inflammation of the femur, which had implicated the knee-joint, and resulted in great enlargement of the bone and anchylosis of the joint, attended with most severe pain and total loss of use of the limb, no treatment seemed to be of any avail until the cautery had been freely used over the end of the femur and knee, and those present had been able to witness the effect of this agent, which resulted in immediate and permanent relief. In another case which had been before their notice, that of a young woman with disease of the hip-joint, the symptoms denoting progressive disintegration of the articulation, the usual treatment was adopted—namely, rest, extension, and local applications—but although the acute symptoms were relieved, intense pain persisted, especially at night. The actual cautery was applied, and the effect was to mitigate the pain within a few hours, and ultimately the course of the disease was arrested. Another striking instance of the good results produced by the cautery had recently been under their notice. It was the case of a poor woman who had suffered for some time from disease of the spinal column in the dorsal region. There was some curvature, very severe pain on pressure over three of the vertebræ, and latterly the woman had lost control over the bladder. After she had been kept at rest for some little time, and the more urgent symptoms had been relieved, he applied the actual cautery freely over the diseased vertebræ, and at the same time administered mercury internally, so as to produce gentle ptyalism. The effects were almost immediate: pain was relieved within a few hours, the bladder symptoms were removed, and in the course of six weeks the woman left the hospital convalescent, having been previously fitted with a Sayre's jacket. In an instance, also, of disease of the ankle-joint in a strumous lad, where the features of the case pointed to mischief in the bone rather than in the synovial membrane or cartilage, he was on the point of amputating the foot, but before doing so, he determined to apply the cautery freely. This was done under ether, and with such good results that the patient left the hospital with a stiff ankle but a serviceable foot.

Mr. Smith said he was anxious to draw their attention to one important point in connection with this means of treatment. It should not be used in instances where acute inflammatory action existed; it would be necessary to abate the acute symptoms before using the cautery. In all the instances alluded to this had been done, and the actual cautery was then applied; in fact, as he had often pointed out to the pupils in the wards, it was in those instances where the chronic inflammation was going on, threatening progressive disintegration of the joint structures, and especially those instances where constant pain was a notable symptom, that the actual cautery was such a powerful help to the surgeon; and he strongly advised its use in such cases before resorting to more severe proceedings.

Gastrostomy.

After reporting a successful case in the *American Practitioner* for May, 1884, Dr. S. W. Gross says:

A personal experience with two cases and a thorough knowledge of the literature of the subject have convinced me that gastrostomy is not only easy of performance, but that it should be resorted to in all cases of carcinoma of the esophagus as soon as dysphagia has set in, for the double object of alleviating suffering and prolonging life. The best incision to reach the organ is that of Bryant, which commences at the outer border of the rectus at the level of the eighth costal cartilage, and is carried for three inches below the borders of the ribs toward the apex of the tenth cartilage, the movable tip of the latter on the ninth cartilage being a capital guide for the termination of the incision. Unless there is imperative need for opening the stomach at once, it will be wise to divide the operation into two stages, so as to insure perfect union of the peritoneal surfaces, and thereby prevent peritonitis from effusion. To effect this object, the stomach should be stitched to the wall of the abdomen by an outer row of pure silk sutures, as recommended by Howse, in addition to the sutures inserted through the viscus and the edges of the wound, care being taken not to penetrate the cavity of the stomach, lest its contents may pass through the punctures and light up peritonitis, as happened to Volkmann. The opening in the stomach, which may be made after the lapse of five or six days, should not be longer than a quarter or the sixth of an inch, and in making it the organ should be steadied by the two threads or wires inserted at the first operation near the center of the exposed portion. For feeding, an elastic tube of sixteen or eighteen millimeters in circumference may be permanently retained in the opening, but it should be renewed at least every four days.

Gastrostomy for carcinoma has been resorted to at least one hundred and fifty-eight times. Forty-two of the subjects perished as the direct or indirect result of the operation; twenty-one from peritonitis, eleven from pneumonia, bronchitis, and pleurisy, five from shock, four from phlegmonous gastritis, and one from renal convulsions. The mortality may therefore be placed at 26.58 per cent., which is not large when the exhausted condition of many of the patients at the time of its performance is taken into consideration. Two additional cases succumbed, one from hemorrhage from the growth, and the second from suffocation due to perforation of the trachea, while sixty-five died of exhaustion, starvation, or extension of the disease, at periods varying from nine hours to one month; in fourteen the second step of the operation was not completed. Of the entire number, 109 died in one month; four were living, but how long can not be determined, and forty-five survived longer than one month, the average duration of life after the stomach was opened having been thirty-three days.

Of the forty-five survivors, twenty-seven expired subsequently: two in five weeks, two in seven weeks, eight in two months, two in two months and a half, three in three months, two in four months, two in five months, one in six months, one in seven months, one in seven months and a half, two in eight months, and one in ten months. Of the remaining eighteen, three were living at the end of one month, two at forty days, one at seven weeks, three at two months, two at three

months and a half, two at four months, one at five months, one at six months, one at seven months, one at twelve months and nine days, and one at thirteen months. The last two cases were under the charge of Mr. Walter Whitehead, of Manchester, England, who was kind enough to write me that the first could not live much longer, while the second was still enjoying excellent health.

The Treatment of Sea-Sickness.

Dr. T. T. Reynolds thus writes in the *Lancet*, June 28, 1884:

With regard to the symptoms of sea-sickness, I only need mention those which bear on its etiology and treatment. The first is excessive glandular action, the salivary glands being those soonest affected. Efferent empulses from the secretion centre in the medulla, descend by the chorda tympani, and excite this salivary secretion. Now, we know that atropine paralyzes the secretion centre in the medulla, and if given early in sea-sickness we find it cures the affection. A drop-dose of liquor atropiæ sulphatis, B. P., in a teaspoonful of water, should be given every hour till the physiological effect of the drug is produced. The sedative action of atropine on the medulla renders altered sensory impressions inoperative in producing sea-sickness. It should be given early in the affection, as when the more advanced or secondary stage is reached, its effect is not so marked, though still beneficial. In some cases sugar is found in the urine, due probably to the irritation of the diabetic centre in the medulla. Four minim-doses of Fowler's solution thrice daily is the best treatment in such cases. When called in after the affection has lasted two or three days, the medical man generally finds the patient greatly depressed, with a furred tongue, bowels obstinately constipated, pulse quick and weak. The best treatment of this stage is to have the bowels well moved by enemata. The atropine should be given as above, and the patient's strength supported by drachm-doses of a mixture composed of equal parts of brandy and iced water. The dryness of the throat caused by the atropine will be best relieved by small quantities of ice or iced lemonade. Valentine's meat juice or cold beef-tea, "a little and often," will sufficiently nourish the patient till more solid food is relished. Bromides, like atropine, have a sedative action on the brain, but, to prevent sea-sickness, must be given in sufficient quantities to produce bromization. Now, as bromism is a very serious condition, and one liable to affect a patient's reason and general health most injuriously, the bromides should be used with great caution, and only when prescribed and their action watched by a medical man. A late New York physician published a book on sea-sickness for the general public in 1881, in which he recommends travelers to "purchase a pound" of the bromides of potassium or sodium, and to take as much as ninety grains a day before coming on board, and to keep up a bromized condition during the voyage. This is dangerous advice, and the public should be warned against adopting it. I have seen lamentable results follow such abuse of the bromides. One case was that of a clergyman, who had taken ninety grains daily two days before coming on board and two days afterwards. I was called to see him during the night of the fourth day. He was insane, unable to remember, subject to illusions, and incoherent in his talk. This condition lasted seven days. Two business men of New York also came under my care, suffering in a similar manner. Both were married men, and the bromization rendered them impotent for some months, and also incapacitated them for business. In such cases of bromide poisioning, I find nourishing food, with small quantities of brandy and sal volatile, at regular intervals, the best treatment. Chloral hydrate is a useful drug in some cases of sea-sickness; its curative action seems to depend on its rendering the brain anæmic, as we find that the vaso-motor centre in the medulla is affected in the same way after loss of blood and under chloral.

Injections of Glycerine and Carbolic Acid for the Preservation of Bodies for Dissection.

Dr. O. T. Freer thus writes in the *Chicago Med. Jour.*, July, 1884:

During a course of dissection in the anatomical department of the University of Munich, I observed that the material showed a remarkable resistance to decay, being still fresh at a period when the average subject of Chicago's dissecting-rooms is too much decomposed for use. The parts which I was dissecting were in almost as perfect a condition after exposure to the air of a warm room for from two to four weeks, as when they were first given me; and those portions from which the skin had not been removed, remained entirely unchanged.

On inquiry, I learned from Professor Rudinger, Munich's anatomist, a man who has written numerous valuable works and done much for science by his original researches, that he preserved his subjects by injecting into the femoral artery a mixture of glycerine, carbolic acid, and alcohol, a method invented by himself and used here since 1872.

Since its introduction he had seen no bad effects from dissection wounds here.

He said that, according to the amount of injection material used, subjects would keep from two to six months in a summer temperature, the only necessity being moisture to prevent mummification.

The solutions used by Prof. Rudinger are:

(*a*) For preserving bodies for long periods, three to six months: Glycerine, 40 parts; carbolic acid, crystalized, 11; alcohol, 8.

(*b*) For preserving bodies from two to three months: Glycerine, 80 parts; carbolic acid, 17; alcohol, 13.

The amount injected varies according to the length of time it is desired to preserve the subject, from two to four litres being ordinarily used; but an average body will readily contain six or more.

The advantages of this method are, that the tissues preserve their natural appearance and pliancy from the commencement of an ordinary dissection to the end. Students, therefore, need not hurry their dissection, even in warm weather, as decomposition is so slow that the parts dissected last are in as perfect a state as those seen first. The solutions mentioned above do not whiten the tissues, which retain their natural appearance to the end.

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ANTIPYRIN.

Knorr, in Erlangen, has manufactured from chinolin a new alkaloid, called, on account of its antipyretic effect, antipyrin. Dr. Paul Guttmann, in Berlin, has recently investigated its effect, and published the results of his observations in the *Berl. Kl. Woch.*, 20, 1884.

He made use of the drug fifty-seven times, in twenty-seven patients laboring under a high temperature. The cases experimented upon were as follows: 6 fibrous pneumonia, 6 typhoid fever, 2 scarlatina, 2 febris recurrens, 2 erysipelas faciei, one each of variola, morbilli, pleuritic exudation, erysipelas cruris, and abscess of the arm, and 4 of pulmonary phthisis with continually high fever. The temperature was usually taken in the rectum, in a few cases in the axilla, and generally every hour during the day, and every two hours during the night.

The results teach that antipyrin, in the dose of 64 to 96 grains, has a certain and high antifebrile effect, at least lasting five hours, and often much longer. It is best to administer the remedy in two or three doses, each of 32 grains, given every hour in watery solution, to which some corrigens for the taste has been added, or in powder form in wafers.

The temperature sinks continually and gradually, already one hour after the first dosis, at least by half a degree, and then goes on falling, until two hours after the third dosis, five hours after first, the decline has usually reached its height, and mounts up to 30. Sometimes the effect continues for eighteen hours. When later the temperature ascends again, it also does so slowly and gradually. The same effect can be achieved by one single dosis of 64 grains, and also by five consecutive (every hour) doses of 16 grains each.

Together with the temperature, the frequency of the pulse declines. In cases where the decline in temperature is great, active perspiration is apt to occur. Disagreeable effects were not observed; only in one case vomiting ensued. Generally the remedy was well borne, even in cases where quinine caused emesis.

Antipyrin has, therefore, a great advantage

compared to kairin. The latter produces its temperature-decline by a rigor; its effect is sudden, and lasts but a short time, when temperature again rapidly ascends. Antipyrin has a similar effect to quinine, but as it is much cheaper, and is generally better borne by the stomach than quinine, its general adoption as an antipyretic, in preference to quinine, can be recommended.

THE VIVISECTION QUESTION.

The discussion on vivisection has become one of the popular literary topics of the day. It offers a good theme for affecting sentiment. *Lippincott's Magazine* had a leading article on it in its last number—*against it*, very pointedly.

In the London *Illustrated News* on the other hand, GEORGE AUGUSTUS SALA says something in defence of it in his happy style. His words are:

"I was, in early childhood, that which I once heard my mother's maid, in conversation with a friend, describe me as being 'a miserable little hobject;' and the doctors were continually doing things to me. I am, in many respects, a miserable object now, and require to be periodically patched up by the faculty. And I will say naught against vivisection, because I never yet met with a cruel doctor, and because I firmly believe medical men to be among the most humane, the most generous, the most unselfish of mankind; and I indignantly denounce the imputation that there are any members of a noble, a high-minded and a beneficent profession who, actuated by no more exalted motives than their 'greed after the hidden things of the life of the flesh,' confessedly and without compunction torture dumb animals. The medical man practices vivisection (with the smallest possible infliction of pain on the animal vivisected) not because he is selfishly greedy after 'the hidden things of the life of the flesh,' but because he wants to find out what is the matter with you, verbose sir, or sentimental madam; because he is striving his utmost to devise means for saving you from misery and anguish; for mitigating the agony of the ills that rack the joints or fire the veins, or that 'in the deeper vitals rage.' He is no worshiper of knowledge as of an idol. He tries during his whole laborious life to learn more and more, in order that he may console and relieve and preserve suffering humanity."

That there is truth as well as good writing in this extract, all must admit.

One of the latest conquests of vivisection is that it has demonstrated that diseased lungs, or portions of them, can be removed from living animals and human beings. At Naples, out of sixty-three animals operated upon in this manner, thirty-six recovered.

CAFFEIN IN DISEASES OF THE HEART.

Gubler, 1877, first reported that there are certain cases of heart disease, associated with dropsy, where caffein has a far more powerful effect than digitalis. Many reports have since confirmed this statement. Dr. X. Francotte has recently once more investigated the action of caffein (*Deutsch. Med. Cent. Zeit.*, June 7, 1884). He shows by the records of six cases, that when digitalis has no longer any effect, caffein may still save life. Its main action consists in a greatly increased diuresis. The dose has to be gradually increased. Its effect on healthy persons seems to be *nihil*, for sixteen grains per diem have been taken without their causing the least effect.

Dr. Kobert, who also has experimented with the drug, comes to the conclusion that caffein, while exerting no influence in normal conditions, acts as a strong diuretic in some cases of heart disease with failing circulation. He further says, that caffein cannot be compared with digitalis, as it never shows any accumulative effect, does not act at all on healthy persons, and greatly stimulates the function of the cases only when the effect of digitalis has ceased.

NOTES AND COMMENTS.

The Action of Digitaline.

From the *Lancet*, July 5, 1884, we learn that M. Kauffmann, of Lyons, working in M. Chaveau's laboratory, has studied experimentally the physiological action of digitaline (amorphous), and embodied his results in an interesting paper contributed to the *Revue de Médecine* of May 10. His experiments are all the more valuable in that they were made upon the higher animals (dog, ass, and horse). He finds that locally digitaline acts as a powerful irritant, which renders it unsuitable for administration by the skin, whether intact or denuded of epidermis, the inflammation excited by

the substance preventing absorption. It has similar irritant action on mucous membranes, and the stomach can only tolerate minute quantities. For the same reason, only very dilute solutions (1 in 500 or 1 in 1,000) are available for subcutaneous injection. He found that absorption took place most readily by the respiratory mucous membrane, next by the gastro-intestinal, next by connective tissue, and least by muscle—the febrile reaction ensuing on injections into the last two named tissues masking the specific effects of the drug. The results of all his experiments as to the general action of digitaline are partly at variance with accepted teaching, particularly as to its effect on the renal secretion; for he finds that in healthy animals digitaline, whether given in large or small doses, does not produce diuresis. Administered hypodermically or in the form of powder in the stomach, it causes a diminution in the quantity of urine excreted, and an increase in the amount of urea. Given by the stomach in the liquid form and in small doses, it diminishes both the quantity of urine and of urea. It only produces diuresis in dropsies due to disorders of the circulation. Of its physiological action on the circulatory organs he declares that in small doses digitaline slows the pulse, but in larger doses accelerates it; and he attributes the former effect to stimulation of the medullary and intracardiac centres of the moderating system, the latter—*i. e.*, acceleration—in central and peripheral paralysis of the system. The intra-cardiac pressure, both diastolic and systolic, is increased, and also the energy of the cardiac contraction. The action of the heart is more regular when accelerated than when slowed by digitaline, whilst the pulse is stronger with small doses of the drug than with large. Small doses slightly raise arterial tension by central and peripheral stimulation of the vaso-motor nerves; stronger doses at first increase, then diminsh the tension. The rate of arterial blood-flow is diminished, and the rectal temperature is lowered.

Iodide of Potassium in Pneumonia.

From the *Lancet*, July 5, 1884, we learn that Dr. Luigi Gualdi, of Rome, gives the iodide in forty-centigramme doses every two hours, at the same time applying the ice-bag over the seat of pulmonary inflammation. In thirty-nine cases in which he practiced this treatment, he had excellent results. In all, without distinction, he observed that the sputum, from being viscid and tenacious, became, before the second day, fluid, resembling bloody serum; that with the cessation of the fever the exhaustion also ceased, although the physical state of the lung was not improved—nay, in some cases aggravated; and, finally, that in all the convalescents the appetite was so sharpened that the ordinary diet had to be considerably increased. The mortality was six per cent., while of the two who died one could not be included in the calculation, because, being affected with pneumonia of the apex with furious delirium, he took only two grammes of the iodide of potassium. It is worth remarking, continues Dr. Gualdi, that the fever and the exhaustion ceased, although the physical condition of the lung remained unchanged, thereby confirming Schwartz's position, that the fever is independent of local alterations; also Jürgensen's contention that the cause of the exhaustion resides not in the change in the lung, but in the fever, seems to be similarly confirmed. Dr. Gualdi concludes that from his experience the treatment by the iodide succeeds better with the youth of either sex than with adults; that the iodide should be exhibited at the beginning of the disease, to insure an immediate and perfect result; that the iodide is efficacious over the fever and the exhaustion, but not over the localization, which latter indeed may even be extended under the treatment; that the iodide and potassium combined separate in the organism, so that each has its special virtue; and, finally, that the action of the ice is secondary, inasmuch as it operates on the effects, and not on the cause of the disease. It is useful in the congestive stage; hurtful when the contents of the air-cells are already solidified and the lung indurated.

Unusual Weight of Fœtus at Full Term.

Dr. Edward Gordon reports this case in the *British Medical Journal*, April 5, 1884:

On March 16, a lady, aged thirty-five, primipara, tall, healthy, and well built, gave birth to a well-formed female child, weighing eighteen pounds and measuring twenty-six inches in length. Delivery was effected by forceps, and presented no unusual difficulty till after the head was born, when the shoulders wedged between the coccyx and the pubic arch; by bringing out each arm they were released. The pelvis now lodged in the same place as the shoulders, and was only liberated after a severe struggle, by compressing the iliac bones of the fœtus. The passage, even of the thorax and abdomen, was effected only by great effort. There was just a twitching of the nose and lips of the child after

birth. The placenta was expelled in ten minutes afterwards. A binder was applied and one drachm of ergot administered. The pulse was 80. The patient seemed exhausted, but fully conscious. Artificial respiration, warm bath, brandy, etc., failed to resuscitate the child, although persevered in for half an hour. Unfortunately, the patient, on asking if the child were dead, was answered in the affirmative by an attendant, and at once threw up her hand, exclaiming, "Then I shall die too." She died two hours and a half after the extraction of the fœtus. The immediate cause of death seemed to be syncope from shock, by the news of the death of the child after such a severe and laborious extraction.

Perhaps the extraordinary size of the child may be, in some measure, accounted for by the inordinate appetite of the mother. She herself informed me, during the labor, that she had often eaten a pound of raw meat at a time, took little or no exercise during the last six weeks, often lying in bed till eleven o'clock, and again lying down at three in the afternoon till six. I am informed by a relative that, on one occasion, she ate three pounds of pork at one meal during the latter part of her pregnancy. The lady had made a note of the date since the last menses were seen, which made the fœtus exactly nine months on March 16.

The Treatment of Cholera Infantum.

Dr. James Craig, of Jersey City, publishes a paper on this subject in the *Archives of Pediatrics* for March 15, 1884, in which he says that the treatment of cholera infantum varies very much, and depends upon the physician's ideas and experience. The indications are to prevent nausea and vomiting, support the strength, and check the diarrhœa. If nursing, no change in diet is made, but care should be taken not to nurse the child too often or too much at a time. If bottle-fed, the milk is stopped, and stale bread, soaked in hot water, with a little sugar and brandy added, or Robinson's prepared barley, or arrowroot, made with water, given in small quantities, answer a good purpose. Milk is also prohibited where the child is weaned, but is gradually resumed as it improves. Where the child is weak, one teaspoonful of brandy to six or seven of water, a teaspoonful of which is occasionally given. Where a more powerful stimulant is required, carbonate of ammonia, in one or two grain doses, mixed in syrup of adacia, is used according to the age of the child.

For the gastric and intestinal derangement, his favorite prescription is:

℞. Liq. acidi carbolici, 5 per cent., ℥j.
Bismuthi subcarb.,
Pepsini sacch., āā ℥j.
Aq. cinnamomi, ℥iij.
Syr. aurantii cort., ℥ij.

M. Sig.—A teaspoonful every two or three hours until relieved.

He also applies a spice plaster over the abdomen composed of the following:

Powdered cinnomon, cloves, nutmeg, ginger, allspice, of each, ℥ij.; honey and glycerine, of each, ℥vj.; white of one egg.

M. And spread on cheese cloth or fine mosquito netting. It may remain on over the region of the stomach and bowels for hours or days without blistering—it merely reddens the skin, and is an excellent counter irritant. A bandage should be applied over it to keep it in place.

Change of air frequently brings about convalescence in a very short time. When that cannot be had, the next best thing is to take the child out daily for an hour or two at a time, early in the morning and late in the afternoon. While in the house the child should be kept in a well-ventilated room, free from draughts.

Cystic Tumor of the Thyroid Body.

The following case (which Dr. J. Sidney Hunt reports in a foreign exchange) may, perhaps, be of interest:

At six o'clock on the evening of June 9, he was asked to see a woman who "was taken with a rising in the throat," and was thought to be choking. He found the patient (a woman about forty-six years of age) in an agony of dyspnœa—loud stridulous inspiration, and lividity of face, etc. She had a lump about the size of an orange in the situation of the thyroid isthmus. This lump was stated by a neighbor to have increased in the course of a few minutes from the size of a walnut. There was, however, nothing peculiar in the appearance of the tumor, which looked like a *goître*, and he concluded that the appearance of sudden enlargement was due to the general engorgement of the neck. The *goître*, in fact, appeared to be an accidental complication of a case of laryngeal obstruction or spasm. In a few minutes, chloroform and nitrite of amyl were obtained. The patient was by that time senseless, livid, and making a few last desperate efforts at respiration. Both the nitrite of amyl and the chloroform were tried, with artificial respiration, but without the least effect. The most vigorous efforts

at artificial respiration failed to draw air into the chest. The lump of unknown nature, in front of all the available part of the larynx and trachea, prevented him from making any attempt to open the windpipe. The time from the first symptom of dyspnœa to the moment of death was about ten minutes.

When, at the post-mortem examination, the lump in question was removed, it turned out to be the isthmus of the thyroid gland, hollowed out into a ragged and irregular cavity containing recent blood-clot. The sides of the cavity were covered with old and partly-organized clot. The trachea was flattened from before backwards, from pressure of the tumor upon it. The cause of death was evidently the effusion of blood into the cystic tumor (thyroid cyst?), either directly by pressure on the trachea, or indirectly by pressure on the recurrent laryngeal nerves, causing spasm of the glottis. The larynx was healthy. The trachea was, as before mentioned, flattened from before backwards, especially the second, third, and fourth rings, which corresponded to the greatest size of the tumor.

Arsenic in Gastric Ulcer.

Of course, we all know that regulation of the diet is of paramount importance in the treatment of gastric ulcer. But, making due allowance for the great improvement which always follows the regulation of the diet, Dr. John Strahan (*Brit. Med. Jour.*, June 21, 1884,) thinks the treatment by small doses of arsenic gives results to be obtained by no other mode of treatment. More than, at the outside, two drops should never be given, as the irritating action would then commence to the injury of the patient. By an action on the end organs of the gastric nerves, small doses relieve the pain wonderfully, and improve the general tone of the gastric mucons membrane, curing the gastric catarrh which exists at least in the immediate neighborhood of the ulcer, and thus relieving the patient of the vomiting of mucus, which is sometimes an important feature of the case. We also know that a weak solution of arsenic will, out of the body, heal unhealthy ulceration, *e. g.*, cynchia, or even when given internally, so that it is not strange that it should act locally as a cicatrizing agent on a gastric ulcer. Nitrate of silver, the next best remedy, recommended by such men as H. C. Wood, Da Costa, and Wilson Fox, is not nearly so efficacious, either in relieving the pain or in promoting cicatrization. Indeed, in all gastric and intestinal affections in which nitrate of silver is so much recommended and is so successful, he believes that the small dose of arsenic is far more valuable, and it is certainly far more convenient. Bismuth is highly recommended by Brinton and many high authorities, but it has been recently said that it very often owes its powers as a sedative to the stomach, to a trace of arsenic which it contains.

Spina Bifida Cured by Elastic Ligature.

The *Lancet*, May 17, 1884, tells us that Dr. Antonino Turretta has republished, from the *Giornale di Clinica e Terapia*, of Messina, a case of spina bifida successfully treated by the elastic ligature. His aid was requested for a female child two months old, apparently in good health. She had a tumor as large as a small apple in the middle line, opposite the two last cervical vertebræ. It existed at birth, and had since slowly increased. It was supported by a pedicle which measured an inch and a half in circumference. The covering skin was very thin, and of bluish-red color. The tumor was soft, flaccid, and fluctuating; under strong pressure it diminished somewhat in size; the child cried, and slight convulsive movements were excited in the limbs. No other deformity was present, neither was there paralysis of any organ. An exploratory puncture at the base of the tumor with a trocar gave exit to a thin transparent liquid of alkaline reaction. The tumor shrank, and the aperture was closed with iodoform collodion. Distension and fluctuation were again perceptible in twelve hours. The tumor having been half emptied by another puncture, its pedicle was constricted with a couple of turns of elastic ligature. At the moment of constriction the child cried, the face became livid, and some clonic movements were excited; but in a few hours the patient took the breast and rested. The next day vomiting was persistent, there was a tendency to coma, and twitching of the upper limbs. The condition on the third day was unchanged, and a small dose of calomel was given each day. All these symptoms had subsided on the sixth day, and the ligature with the tumor separated on the twelfth day, leaving a granulating surface, which gradually contracted. The cicatrix was complete and the child cured on the twenty-seventh day.

Phosphorus in Tubercular Disease.

In the *Brit. Med. Jour.*, June 21, 1884, Dr. John C. Thorowgood tells us that he has employed phosphorus as well as the hypophosphites of potash and soda, and under the influence of these prep-

arations he has seen pleuritic thickenings melt away. Old-standing consolidations of lung, that had existed for one, two, or three months, he has seen at once begin to move and disperse as soon as the hypophosphite of potash was given; and cases that have appeared to himself and others very like acute tubercle in the lungs have sometimes recovered on the hypophosphite treatment.

He commenced, about twenty years ago, with phosphorated oil as a medicine; but, owing to its nauseous taste, he took before long to the use of the hypophosphite salts, which contain phosphorus in a very low state of oxidation; and certainly, in those lung diseases which are of inflammatory exudative origin, and apt to run into phthisis, he knows of no remedy to compare with the hypophosphites. Before the discovery of the tubercle-bacillus, he had come to the conviction, from observation, that there were cases of lung disease where something seemed most decidedly to stop the way towards recovery by means of drugs given by the stomach. If inflammation be the sole agent that destroys the lung in phthisis, he should regard very few cases as incurable. It is the bacillus that seems to set the phosphorus treatment at defiance; and he notices at Victoria Park Hospital, that, just when he finds the hypophosphites most helpless, then it is that his clinical assistant finds "lots of bacilli."

A few weeks ago, he turned out as cured a case of unmistakable disease in the upper third of one lung, and in that case no bacilli were found.

The Treatment of Ostitis.

In the *Brit. Med. Jour.*, July 5, 1884, Mr. C. Macnamara thus tersely puts the question of treatment of ostitis: "We must bear in mind the fact that, supposing the exciting cause of tubercle be a bacillus, it is certain that an hereditary predisposition, and other recognized circumstances, prepare the soil in which any such influence can take root and grow. Pure air, sunlight, and plenty of wholesome food, are essential to the building up, or fortifying tissues against the action of any causes which provoke the growth of tubercles. If tubercles have formed in a bone, means tending to invigorate the patient's health must be enforced, and at the same time the diseased tissue should be protected from concussion or injury. Rest to the diseased bone is useful, and it should be employed so as to relieve pain caused by the pressure of the extremities of tender parts against one another. But, in my opinion, it is a mistake to suppose that rest, or confinement to a couch or bed for weeks and months, particularly in young children, is a judicious method of treating cases of this kind, especially in the early stages of the disease. I am convinced that the actual cautery, applied judiciously near the seat of the disease, and repeated if necessary, is of great service in many of these cases. In more advanced instances, good hygienic conditions, great patience on the part of the patient, his friends, and the medical attendant, and the removal of diseased bone, together with free drainage, will bring about results more favorable than could otherwise be attained. Subperiosteal excision of the diseased extremities of the bones is sometimes attended with most favorable results."

Ovariotomy in Infancy.

From the *Brit. Med. Jour.*, April 12, 1884, we learn that Dr. Roemer, Assistant-Surgeon to the Augusta Hospital, Berlin, has recently published in the *Deutsche Medicinische Wochenschrift*, a case of ovariotomy performed by him on a child aged one year and eight months. At the birth of the child, the midwife observed that its abdomen was much distended. There was little difficulty in diagnosis, and the pelvis was readily explored through the rectum. The tumor was removed last August, under corrosive sublimate spray; it was "of the size of a child's head," and there was slight adhesion of the omentum. The pedicle was long and thin, and was secured by a double catgut ligature. The right ovary was the seat of disease, the left was perfectly healthy. The tumor was dermoid, containing hair, bone, and cartilage. After the operation, the child was tied gently but effectually on to its cot, and opiates were given when required. It was fed on cold milk and wine. The highest temperature was 101.6°; this point was reached on the evening of the second day. On the fifth, the child's bowels were freely opened by five minims of castor-oil administered twice; on the twelfth, the abdominal sutures were removed. The child recovered perfectly. Dr. Roemer gives the following statistics of ovariotomy performed on children: One of the youngest cases next to his own was under the care of Dr. Neville, of Dublin; the patient was two years and eleven months old, but only survived the operation for two hours. Busch operated on an infant aged two; Alcott on a child aged three; both cases died. Schwartz operated successfully on a child aged four; Barker on two, and Knowsley Thornton on one, aged seven; and Spencer Wells, Cupples, and Chenoweth, each on one child eight years of age.

Exercise for Girls.

The *Brit. Med. Jour.*, March 22, 1884, says:

Several daily papers have recently discussed a letter from Mr. H. P. Dunn, published in the *Standard*, on the use and abuse of gymnastics for young women. The letter, as might be expected, turns attention to the evils of excessive gymnastic training. As violent exercise produces bad results on weak youths, and as girls are, on the average, weaker than young men, it is natural to suppose that injuries to health after gymnastic training may be commoner amongst females than amongst males; and experience shows this to be the case. No doubt the best kind of physical training in youth is voluntary exercise, either in playing at the outdoor sports popular with English boys, or in rambles over fields and hedges. For certain social reasons, not entirely unconnected with physical matters, neither such sports, nor such congenial walking exercise, can be carried out in girls' as thoroughly as in boys' schools, and methodical gymnastics stand to cricket in the same relation as a walk with other fellow-pupils in line and in class does to a pleasant saunter with one or two school-fellows along a country lane. The aim of the authorities at a girls' school should be to allow as much congenial exercise as possible to every pupil, and to encourage physical activity as strongly as cleanliness and deportment; gymnastics are quite secondary to such conditions. Mr. Dunn is right in recommending frequent drilling; but in preferring dumb-bell practice to bar and ladder gymnastics, it must be remembered that severe palpitations are not unfrequently set up by the use of dumb-bells, even when that form of exercise is not disagreeable, and when the subject is apparently free from visceral disease.

The Compatibility of Sulphate of Quinine and Iodide of Potassium.

It having been suggested that when these drugs are prescribed together, or one a short time after the other, owing to their incompatibility, that they will produce anorexia, nausea, even vomiting, or colic. William Martindale writes to the *Brit. Med. Jour.*, July 5, 1884, that such a mixture, with the addition of compound powder of tragacanth, is a favorite with a physician in large practice, yet he never heard any complaint about its effect. Chemically, their incompatibility will depend upon whether the normal sulphate of quinine is dissolved by diluted sulphuric acid added to the mixture or not. No decomposition will occur if the two neutral salts be mixed with water in a fairly diluted condition; in an ordinary dose, some quinine will remain undissolved, as sulphate of quinine. But if diluted sulphuric acid be used to dissolve the sulphate of quinine, the mixture is at first clear; but, on standing, it deposits a reddish-brown powder. Theoretically, this is due to the sulphuric acid reacting on the iodide of potassium, setting free hydriodic acid, which is colorless, but readily decomposes, liberating iodine; and this element, under certain conditions, has a great affinity for sulphate of quinine, forming sulphate of iodo-quinine. The reddish-brown powder which he has mentioned as depositing in the above mixture is not pure sulphate of iodo-quinine. It has been analyzed by Righini (Watt's Dictionary, vol. v, p. 20), and shown to be a mixture of hydriodate of quinine and iodo-quinine.

The Essentials for the Safe Administration of Ether.

Dr. David W. Cheever concludes an article on the administration of ether in the *Boston Med. and Surg. Jour.*, May 29, 1884, by giving the following essentials for its safe use:

An empty stomach.

A loose neck.

A free abdomen; no corsets or skirt bands.

Removal of artificial teeth.

An easy, semi-recumbent position.

A sponge wrapped in towels for the ether.

A gag, and forceps for the tongue.

When stertor occurs, the patient should be tipped forward, the cheek opened with two fingers, the tongue drawn out, the fauces swabbed. To *insure* safety, the surgeon should hear every respiration of the patient.

Anæsthesia from sulphuric ether is of two forms:

1. Primary anæsthesia, which is a moment of confusion coming on after a very few inspirations. At this moment a felon can be opened without pain, and the patient wake at once.

2. Comatose anæsthesia, for prolonged operations. Ether *may* be given almost indefinitely. To relieve the hopeless agony of tetanus, I have had it administered for twenty-four hours.

If you would avoid asphyxia, nausea, and headache, and be *safe*, use only the best and the purest anhydrous sulphuric ether.

Surgical Treatment of Acute Circumscribed Pulmonary Gangrene.

Dr. Christian Fenger, of Chicago, presented a paper on this subject to the late meeting of the

Illinois State Medical Society, from which we extract the following recommendations:

1. The incision ought to be made parallel to the ribs.

2. The ribs must be exsected to a degree sufficient to secure access to the part.

3. In conformity with the suggestion of Albert and Mosler, the needle of a hypodermic syringe should be used as a guide into the cavity, or diseased lung tissue, and the small platinum pole of Paquelin's thermo-cautery should be employed to effect the opening.

4. The cavity must be washed out if practicable. Due care must be exercised to prevent drowning, if the cavity connects with a bronchus. Irrigation of the cavity was productive of no untoward effect in Buhl's case, but was the cause of troublesome cough in Fenger's patient, and Mosler ascribes one death to poisoning from thymol irrigation.

Dr. Fenger is of the opinion that there is no immediate danger of death from the operation, and that it is indicated in cases of acute circumscribed pulmonary gangrene.

Tobacco Amblyopia.

That the excessive use of tobacco has an injurious influence on sight has been amply demonstrated. Dr. Charles Shears contributes a very able article on the subject to the *Brit. Med. Jour.*, June 21, 1884, in which he formulates the following conclusions:

a. Atrophy of the optic nerves is very rarely met with as the result of excessive smoking.

b. Tobacco is the essential agent in producing the failure of sight.

c. Great moderation in smoking, and especially the employment of mild forms of tobacco, is all that is necessary to insure recovery.

In the great majority of cases, no diminutiton in the peripheral field of vision was found. In twelve only were careful observations made with regard to a central defect in the visual field; and, of these twelve, six cases were found having well-marked "central scotomata."

Hydrobromate of Conia in Epilepsy.

We will all at least agree with Dr. R. Norris Wolfenden, when he tells us in the *Practitioner*, (June, 1884), that his experience with bromide of potassium in epilepsy has not been satisfactory, to say nothing of the disagreeable skin eruption which it frequently induces. But we cannot accept positively, until it has had further trial, his recommendation in favor of hydrobromate of conia. While he does not praise it very highly, yet it would seem from the tenor of his article that he has found it more useful than any other drug now in use. The dose is half a grain thrice daily, gradually increased. It would seem to us that those who regard epilepsy as almost always a traumatic disease, so to speak, that is to say, a disease with a palpable cause (palpable when carefully sought for), will have the most success in its treatment. So says Dr. Pepper, and he knows whereof he speaks.

Pasteur on Hydrophobia.

From the *London Med. Record*, April 15, 1884, we learn that the results of M. Pasteur's experiments were presented to the Académie de Médecine, Paris, on February 26. They show that the virus has been found in the saliva, brain, spinal cord, peripheral nerves, and sometimes in the cerebro-spinal fluid. The medulla oblongata of a rabid animal contains an enormous number of very fine granules, which are supposed to be the virus, but which have not been satisfactorily isolated. When the virus is injected into the subcutaneous cellular tissue or into the veins of a healthy animal, the paralytic form of the disease is produced, while the furious form appears after inoculation of the virus upon the surface of the brain. M. Pasteur thinks that the virus may be attenuated by passing through different species of animals, and that immunity may perhaps be conferred on dogs, though on this point the experiments are not conclusive.

Mercury in Pleurisy.

Dr. J. A. McDougall, of Edinburgh (*Practitioner*, June, 1884), believes that mercury will cut short the morbid action in pleurisy. In the case of a feeble and exhausted woman, he gave blue pill gr. ij., with squills and digitalis āā gr. j., night and morning, with the happiest results; and he concludes that if in a case such as this, the subject of which was a broken and feeble woman, in whom acute disease had already induced very pronounced asthenia, one can use with success a drug the debilitating effects of which form in the opinion of many the gravest objection to its employment, the field of its usefulness becomes, in his opinion, a great and wide one. So truly is he convinced of its value, that for many years he has treated no case of pleurisy without its aid.

Elenine for Coughs.

The *Med. Record*, May 31, 1884, tells us that Dr. Valenzuola has recently met with considerable success in the treatment of troublesome coughs

by elenine given in pill-form or in tincture (*El Siglo Medico*). He employed it in bronchitis and phthisis, in doses of one-eighth grain in pill ten times a day, or five drops of the tincture three times a day. In every case he states that the cough was moderated, the expectoration was lessened in quantity and became mucous, and the thoracic pains were greatly mitigated. The drug also increases the appetite and improves digestion. It is possessed of no narcotic properties. Elenine is not a new remedy, for it was known, though but little esteemed, by our fathers. Further trials with this drug will have to be made before the indications for its use shall be sufficiently clear and definite to establish its claims as a reliable remedy for coughs.

Reindeer Tendons in Surgical Practice.

In the *Russkaia Maditzina*, No. 5, 1884, p. 118, Dr. Putiloff, of Omsk, Siberia, recommends threads made of reindeer tendons (used by Ostiaks for sewing their boots, coats, etc.), as a substitute for catgut in surgical practice. The author tried this material (after treatment by ether, to remove fatty acids, and by a five per cent. solution of phenol in absolute alcohol) in a case of epithelioma of the lower lip. The sutures underwent complete absorption by the end of three days. As the author states, the strength of these tendon-threads is very considerable. The price of the article is extremely low.

Laparotomy for Volvulus.

The *Gazzetta degli Ospitali* of June 11 reports that Dr. Medini performed laparotomy in the Ospitale Maggiore of Bologna on the 19th of April last, for twisting of the intestine. The operation was quite successful, and the patient (a male, aged sixty-three), may be considered cured. Notwithstanding the manipulation required to disentangle the intestinal coils, and to separate the adhesions between them, the case progressed without serious symptoms.

Abnormality of the Diaphragm.

At a recent meeting of the New York Pathological Society, Dr. Ferguson presented the body of a colored infant from the Morgue, showing absence of the diaphragm on the left side. The stomach, the left lobe of the liver, the greater part of the small intestine, and the cæcum, were all in the left pleural cavity. The left lung was not developed beyond the size of a hickory-nut, and was emphysematous. The right lung was well developed.

Correspondence.

Multiple Calculi in a Man Aged Sixty-four.

Eds. Med. and Surg. Reporter :—

———, aged 64, presented himself at the "City Hospital," of this city, for treatment for "gravel." He dated the commencement of his urinary troubles back twelve years, and claimed a steady increase of suffering to date of application, when his suffering was indeed terrible. Dr. W. H. Myers, surgeon to above institution, after an examination with the sound, pronounced the case one of multiple calculi, and advised an early operation.

On June 23, 1884, the patient was anæsthetized, and the surgeon, assisted by his son, Dr. Herschel Myers, and in the presence of the leading physicians and surgeons of the city, proceeded to perform lateral lithotomy. The viscus was entered easily, and the calculi, nine in number, were extracted. As many of them were sacculated, the extraction was performed with difficulty. The calculi ranged from the size of half a filbert to twice that size, all presenting one or more articular facets. The aggregate weight of the calculi was five and one-half ounces. The patient rallied well from the operation, and never presented an untoward symptom, on the 18th day was passing his urine per urethra, and now, on the 21st day, the external wound is almost closed, which is certainly a brilliant result in a patient of his age and condition incident to his previous suffering.

J. W. McCausland, M. D.

Fort Wayne, Ind.

News and Miscellany.

Good Advice to Medical Students.

At the opening of the summer session of the Cork Fever Hospital, Dr. T. B. Moriarty delivered an address to the students, from which we take the following:

"I fear an opening lecture of this kind would be considered incomplete if we did not give you some advice as to how you can best avoid catching fever. We have hitherto been so far fortunate that no student contracted contagious disease during the period of his attendance; and we can for this reason say to you, as we did to them, with greater confidence: Never try to beat up against time. Get up early and come here leisurely, after a good breakfast; and do not for any reason venture into the wards with an empty stomach, or in a heated condition, or at a time when your health is lowered by severe study or over-exertion. Remain in the wards as long as your duty only will require; and be careful when you are examining a patient not to inhale his breath; and also avoid dirty smells, observe extreme cleanliness, and wash your hands frequently. You have a right to expect from us, from the accidental position we occupy as your teachers, that we should bestow such an amount of time and attention as will enable you to thoroughly understand the nature and treatment of fevers; and if you carefully study the cases

you see here for a few months you will obtain a thorough knowledge of one class of disease, and this the most appalling which can afflict the human being; for the ravings of the fever-stricken cannot fail to excite your sympathies. We will have much to say at the bedside; and when we ask questions of the patient, we do so, first of all, for the sake of judging of his capacity; and, secondly, in order that you may yourselves be able to see how our inquiry is conducted as regards certain signs and symptoms of the various stages as we find them. In after-life, when you are thrown on your own resources, you will find this method useful in helping you to unfold the histories of the cases you have to treat. For this reason you will, I trust, endeavor to follow us in such inquiry, as this will form the groundwork of more certain knowledge. We have no need to proceed in haste, and least of all to try and make you believe we know more of febrile disease than any one else. Our position here is a twofold one—viz., that of teacher and student—but with a responsibility from which you are exempt. Let us hope that our language and our demeanor will be always as respectful to the poor patients here as it would be if they were in a position to call us in to see them in their own homes; public and private liberality, for which this city is so well known, gives them a temporary home here. Never forget that kindness and gentleness not only mark the man, but also bring their own measure of consolation to those who are ill. Success in life can alone be gained by a high sense of duty, always combined with self-regard and industry. The upright physician knows no difference in his province between the rich and the poor man. Ours is a humane and charitable work, and I am confident none of those I see before me to-day will ever lower this nobility of our profession, which is the hereditary right of all of us. The honor, dignity, and independence of this position are yours as much as mine, and if your conduct and respectful bearing will only equal those who have preceded you in your walks through this hospital, we can then rest in the assurance that this dignity will not be lowered by you. Let us then endeavor to rob death of its pain, and give consolation to all those who are placed under our care."

The Relation of Physician to Patient.

From an admirable address by Dr. John H. Galton (*Brit. Med. Jour.*, July 5, 1884), we extract the following:

From the patient's point of view, the duties of the physician are well summed up by old Burton, "Only thus much I would require, honesty in every physician." Often the all-important question arises, How far are we to be open in the expression of our opinion to the patient? Certainly so far as is necessary to his safety, or to the avoidance of risk. As to the name or nature of a disease, although absolutely frank in their statement to the friends, it is often merciful to withhold the exact nature of fatal disease from the patient. Are we in this matter to be wiser than Providence, which, knowing all, often discloses none? I would mention a case of cancer of the pharynx. A short time back, a case of congested throat, of some duration, disclosed, on closer examination, a mass of cancerous infiltration behind the tonsil. The patient was a strong-minded old man of 60, sturdy, gnarled, and stiff as an old oak; one would have thought him capable of bearing any definite knowledge better than uncertainty. I took a second opinion upon his case, which confirmed my own, and, on his return, he put the question directly to me, "Is it cancer?" I replied, "Yes." He rapidly made a will, and died in three weeks; whether or not the best termination, it is not in our power to say, but certainly the disease did not kill him, for there was neither hemorrhage, nor much ulceration, nor stoppage of food. There is one point upon which, perhaps, we are not sufficiently alive, and that is in promoting euthanasia, or dying in a pleasant way. When our cases fail to yield to remedies, we have to devote our efforts to relieve pain and distress; and I do not think that these should be slackened, and that we should be unaiding spectators in the last painful struggle of death. I have frequently found a quarter of a grain of morphia, given hypodermically, convert the prolonged agony of dying, most distressing to the patient and his friends, into a quiet gliding away. Hear what Bacon says upon this: "And, further, we esteem it the office of a physician to mitigate the pains and tortures of diseases, as well as to restore health; and this not only when such a mitigation, as of a dangerous symptom, may conduce to recovery; but also, when, there being no further hopes of recovery, it can only serve to make the passage out of life more calm and easy. For that complacency in death which Augustus Cæsar so much desired, is no small felicity. This was also observed in the death of Antoninus Pius, who seemed not so much to die as to fall into a deep and pleasing sleep. But the physicians of our time make scruple of attending patients after the disease is thought past cure, though, in my judgment, if they were not wanting to their own profession and to humanity itself, they should here give their attendance to improve their skill, and make the dying person depart with greater ease and tranquility." Our duties would be greatly lightened were patients in general to take to heart the advice of old Burton:

"1. That he be not too niggardly miserable of his purse, or think it too much he bestows upon himself, and, to save charges, endangers his health.

"2. That, out of bashfulness, he do not conceal his grief.

"3. A third thing required in a patient is confidence, to be of good cheer, and have sure hope that his physician can help him.

"4. That the patient is not too bold to practice upon himself without an approved physician's consent, or to try conclusions if he read a receipt in a book; for so many grossly mistake, and do themselves more harm than good."

Popular Cures for Disease.

The *Brit. Med. Jour.* says that a study of the history of medicine, especially in its earliest days, shows how quickly superstition found its way into the practice of the healing art: and, though modern science has almost entirely dissipated the

belief in amulets, charms, and talismans, the yearly pilgrimages of modern days to certain shrines show that some people still place more confidence in supernatural agency than in the prescriptions of doctors. In a recent paper, read before the Society of Antiquaries of Scotland, the Rev. Hugh Macmillan, of Greenock, drew attention to two boulders, having rain-filled cavities, on the shores of Loch Tay, which were formerly associated with the cure of disease. The first one is a large rough boulder of clay-slate, shaped somewhat like a chair. It stands in the middle of a field, and has a deep square cavity, evidently artificial, and capable of holding about two quarts of water. The rain-water contained in this cavity was believed to be a sovereign remedy for the measles, so that the boulder was known in the district as the "Stone of the Measles," and people came to it from all parts of the district, it having ceased to be frequented only in the lifetime of the present generation. The other stone is in the woods at Killin, and is called "The Well of the Whooping-cough," being formerly famous for curing that disease.

Lightning Strokes in France.

M. Cochery, the French Minister of Posts and Telegraphs, has presented to the French Academy of Sciences a report on the lightning strokes in France during the last half of 1883. The report gives the date, hour, and locality of the stroke, together with the number of persons or animals killed, and the nature of the damage and surroundings. During the month of July there were no less than 143 strokes, resulting in 13 deaths; in August, 9 strokes, with 6 deaths; in September, 14 strokes, with 4 deaths; in October, 1 stroke; and in November and December there are no strokes recorded. A survey of the two reports for the year 1883, which have been submitted by M. Cochery, leads to the conclusion that lightning strokes are, in general, more common during the beginning of the year than the end of it, and that they preponderate enormously during the summer months, especially June and July. The accidents have mostly occurred to persons who occupied a position near a tree, a chimney, or a house on an elevated site with trees around it; but there are cases of death in an open field and on a roadway. Several of the accidents have also been associated with the use of umbrellas. Several animals were killed by lightning strokes, of whose deaths no account is taken in this note.

The Disposal of Refuse in Large Towns.

About three years ago, the town Glasgow erected special works for the speedy despatch of the refuse collected all over the city. By the arrangements then adopted, the refuse is made to undergo a process of separation, by which it is made more valuable to farmers, and also of considerable profit to the town; for, by a process of burning, chemicals are extracted, and sold for a high price. The results obtained by this system have been so satisfactory, that the authorities decided to extend it; and recently there were formally opened additional works, which cover ground about an acre in extent. They are on exactly the same principle as the former, though, of course, with certain improvements that experience has suggested. The importance of these refuse despatch works, as well as their necessity, is brought out when it is remembered that, in the case of a city like Glasgow, there are 163 miles of roads and streets to clean and water, and from these 700 tons of stuff are gathered daily. To be able to dispose rapidly and profitably of such a large amount of waste material, speaks well for the system which Glasgow has adopted, and which as yet does not seem to have been taken up by any other large towns.

Subsoil Drainage by the Eucalyptus Globulus.

From a foreign exchange we learn that a curious instance of the power of the eucalyptus globulus to drain wide areas, and of the distance to which its roots will penetrate, is afforded by a story which comes from Alameda county. The owner of Bay Island Farm recently found a curious root-formation of the eucalyptus in the bottom of his well, about sixteen feet below the surface. The trees to which the roots belonged stood fifty feet from the well. Two shoots pierced through the brick wall of the well, and sending off millions of fibres, formed a dense mat that completely covered the bottom of the well. Most of these fibres were no larger than threads, and were so woven and intertwisted as to form a mat as impenetrable and strong as though regularly woven in a loom. The mat, when first taken out of the well, was water-soaked and covered with mud, and nearly all that a man could lift; but when dry, it was nearly as soft to touch as wool, and weighed only a few ounces.

The Paucity in Number of Medical Men in Russia.

That the Russian death-rate is the highest in Europe is attributed to the paucity of medical men in that country, combined with the habits of the rural population. Excepting the two capitals, where there are many German physicians, it is stated that there is no district in the empire sufficiently supplied with doctors. According to the latest returns, the average duration of life in Russia is only twenty-six years; of infants more than 60 per cent. die before they reach their fifth year; of 8,000,000, only 3,770,000 attain the age of military service—*i. e.*, their twenty-fifth year, and of these at least 1,000,000 are found, by reason of shortness of stature and weakness of body, unfit for military duties.

The Professor was Stumped.

"Gentlemen," said the professor to his medical students assembled in clinic, "I have often pointed out to you the remarkable tendency to consumption of those who play upon wind instruments. In this case now before us we have a well-marked development of lung disease, and I was not surprised to find, on questioning the patient, that he is a member of a brass band. Now, sir," continued the professor, addressing the consumptive, "will you please tell the gentlemen what instrument you play on?" "I blays der drum," said the sick man.

Teething.

Dr. K. Dehio, of St. Petersburg, has reported in the *Jahrbuch für Kinderheilkunde* a series of observations made as to the disturbances of infantile health which occur during teething, and the physiological development during that period, as evinced by the progressive increase which takes place in weight. The arguments he founds upon these observations are to the effect that such indispositions are not direct results of teething, but arise from the action of extraneous causes, to the influence of which infants are particularly susceptible at the time of dentition.

Items.

—In the *Lancet*, June 28, Dr. T. Edgar Underhill reports a case of fracture of three ribs from muscular action.

—In the *Lancet*, July 5, 1884, Mr. Bryant reports two cases of fracture and dislocation of the cervical spine, both fatal.

—The Honorary Degree of LL. D. was conferred on Dr. N. C. Husted, of New York city, by Syracuse University at its recent annual commencement.

—The true use of a porous plaster, according to a Milwaukee druggist, is "to retain the back in its proper place and let the pain crawl out through the holes."

—"Rough on Rats" has caused the death of another person, this time by suicide, the victim being a German shoemaker living in Newark, New Jersey.

—A special laboratory has been opened in the Pathological Institute, Munich, for the investigation of bacteria. Great things are expected to result from this step.

—The *Buffalo Medical and Surgical Journal* learns that a very advantageous piece of property has been acquired for a new building for the medical department of Niagara University, near the Grosvenor Library.

—The children of Indianapolis who were given twenty-five dollars' worth of pills stolen from a drug store, and ate them in mistake for candy, were lucky in one respect. The pills were of the homœopathic variety, and did no harm.

—Ophthalmologists will be interested to read some clinical observations on the use of jequirity in trachoma, by Dr. H. Knapp. His conclusions are that it is a quick, but not a safe remedy, and that at present its use ought to be restricted to cases of old and intractable pannus.

—A drama, called "Sister Grace," written by a doctor, and played for the benefit of the East London Hospital for Children, has just been presented at the Avenue Theatre, London. The play introduces hospital life and incidents. The binaural stethoscope made its first appearance on the stage.

—The celebrated alienist, Moreau de Tours, died July 2, at the age of 80. He was principally known by his psychological remarks on the effects of haschisch, and by his great work entitled *La Psychologie Morbide*, the ground-work of which is the celebrated paradox, which gave great offence at the time, "*Le Génie est une névrose.*"

—Sir Henry Thompson recently presented to the Museum of the Royal College of Surgeons his valuable collection of calculi, the result of 812 operations, both lithotomy and lithotrity.

—In the *London Medical Times*, July 5, 1884, Dr. Sidney Coupland reports a case of compression of bronchus by a "cured" aortic aneurism; collapse of lung; bronchiectasis leading to ulceration of pleura and pectoral abscess; death.

—Advices from the City of Mexico, by way of Galveston, state that on the 15th of July the fever was raging at Guaymas, and that there had been several cases at Mazatlan. It was added that as yet the disease had not appeared on the Gulf Coast this year.

—The Medico-Surgical Society, of Bologna, has offered two prizes of 500 lires each. First prize, Sgarze, for the best essay on The Surgical Treatment of Pulmonary Cavities. Second prize, Gajani, The Surgery of Diseases of the Stomach. The essays must be written in Italian, French, or Latin.

—Professor Bèclard, Dean of the Faculty of Medicine in Paris, has issued a circular to the professors, students and officials of the faculty, announcing that a list is open for the reception of the names of those who are desirous of joining the public subscription for a statue to the memory of the great chemist, J. B. Dumas.

—"I tell you, sir," said Dr. —— one morning to the village apothecary, "I tell you, sir, the *vox populi* should not—must not be regarded." "What, doctor!" exclaimed the apothecary, rubbing his hands. "You don't say that's broken out in town, too, has it? Lord help us! what unhealthy times these are!"

—The oil of white birch-bark (oleum betulæ), which gives to Russia leather its peculiar aromatic and lasting qualities, when dissolved in alcohol is said to be excellent for preserving and waterproofing fabrics. It renders them acid and insect proof, and does not destroy the pliability of the fabric.—*Chem. and Drugg.*

—In 1871 there were 300,000 deaths from cholera in Russia; in 1873 there were 16,000 deaths in Poland; in 1872–73 there were 140,000 deaths in Hungary; in 1872–73 there were nearly 27,000 deaths in Prussia; in 1865–67 there were 143,000 deaths in Italy. In Paris the mortality from cholera has been as follows: In 1832, 18,654 deaths; in 1849, 19,184; in 1853–54, 8,096; in 1865–66, 12,082; in 1873, 885. In England, in 1849, the deaths from cholera were 70,000. In 1817 the army of the Marquis of Hastings in India lost 9,000 men in twelve days from Asiatic cholera.

—A correspondent of the *Brit. Med. Jour.* relates the case of a man aged about 60, a publican and a heavy drinker, who had rather a severe cough; and, during a violent paroxysm, he felt and heard a crack in his left side, resembling, as he himself described it, the sound of a match when struck, this being followed by acute pain. Abundant crepitus was easily produced, on manipulation, over several of the lowest ribs, these having no doubt given way under the convulsive action of the diaphragm. The side was supported with plaster in the usual way, and he made an uninterrupted recovery.